

*Department of Energy*

**CIAC**

*Computer Incident Advisory Capability*

# **Electronic Resources for Security Related Information**

## **CIAC-2307 R.1**

**by Richard Feingold**

**December, 1994**



|  |   |  |  |  |
|--|---|--|--|--|
| REPORT DOCUMENTATION PAGE  |   |  | Form Approved<br>OMB No. 074-0188                    |  |
| Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503  |   |  |  |  |
| 1. AGENCY USE ONLY (Leave blank)   |   | 2. REPORT DATE<br>12/1/1994                                | 3. REPORT TYPE AND DATES COVERED<br>Report 12/1/1994 |  |
| 4. TITLE AND SUBTITLE<br>Electronic Resources for Security Related Information CIAC-2307 R.1   |   |  | 5. FUNDING NUMBERS                                   |  |
| 6. AUTHOR(S)<br>Richard Feingold   |   |  |  |  |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><br>Booz Allen & Hamilton<br>8283 Greensboro Drive<br>McLean, VA 22102   |   |  | 8. PERFORMING ORGANIZATION<br>REPORT NUMBER          |  |
| 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br><br>DOE Computer Incident<br>Advisory Capability  |   |  | 10. SPONSORING / MONITORING<br>AGENCY REPORT NUMBER  |  |
| 11. SUPPLEMENTARY NOTES  |   |  |  |  |
| 12a. DISTRIBUTION / AVAILABILITY STATEMENT<br>Approved for public release; Distribution is unlimited   |   |  | 12b. DISTRIBUTION CODE<br><br>A                      |  |
| 13. ABSTRACT (Maximum 200 Words)<br><br>Information Technology (IT) security professionals are battling network attackers. Each of the professionals—from the operations level down to the assistant computer security officer, whether classified or unclassified, manager or user—must maintain their ability to recognize the threat and acquire the appropriate countermeasures. They must gain and maintain knowledge and ability to use the ever increasing resources—on parity with the attackers. This paper opens the door for the novice and enlarges the opening for the expert. It increases the reader’s threat awareness and enables effective and efficient use of the resources that attackers will certainly use against us. In short, cognizance of electronic resources is critical—they are the common ground of both information technology threats and countermeasures. The attackers use the resources with abundant facility; we must become at least as proficient. The remainder of this section sets the perspective of |   |  |  |  |
| 14. SUBJECT TERMS<br>IATAC Collection, information security, network attacker,   |   |  | 15. NUMBER OF PAGES<br>77                            |  |
|  |   |  | 16. PRICE CODE                                       |  |
| 17. SECURITY CLASSIFICATION<br>OF REPORT<br>UNCLASSIFIED   | 18. SECURITY CLASSIFICATION<br>OF THIS PAGE<br>UNCLASSIFIED | 19. SECURITY CLASSIFICATION<br>OF ABSTRACT<br>UNCLASSIFIED | 20. LIMITATION OF ABSTRACT<br><br>UNLIMITED          |  |

## DISCLAIMER

This document was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial products, process or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

This report has been reproduced  
directly from the best available copy.

Available to DOE and DOE contractors from the  
Office of Scientific and Technical Information  
P.O. Box 62, Oak Ridge, TN 37831  
Prices available from (615) 576-8401, FTS 626-8401.

Available to the public from the  
National Technical Information Service  
U.S. Department of Commerce  
5285 Port Royal Rd.  
Springfield, VA 22161

CIAC is the U.S. Department of Energy's Computer Incident Advisory Capability. Established in 1989, shortly after the Internet Worm, CIAC provides various computer security services free of charge to employees and contractors of the DOE, such as:

- Incident Handling consulting
- Computer Security Information
- On-site Workshops

CIAC is located at Lawrence Livermore National Laboratory and is a part of its Computer Security Technology Center. CIAC is also a founding member of FIRST, the Forum of Incident Response and Security Teams, a global organization established to foster cooperation and coordination among computer security teams worldwide.

*Reference to any specific commercial product does not necessarily constitute or imply its endorsement, recommendation or favoring by CIAC, the University of California, the United States Department of Energy, or the United States Government.*

This is an informal report intended primarily for internal or limited external distribution. The opinions and conclusions stated are those of the author and may or may not be those of the Laboratory.

Work performed under the auspices of the U. S. Department of Energy by Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

# Table of Contents

---

|  |           |
|--|-----------|
| <b>Abstract.....</b>   | <b>1</b>  |
| <b>Introduction.....</b>   | <b>1</b>  |
| <b>The Threats .....</b>   | <b>2</b>  |
| <b>Resources and Counter-measures .....</b>  | <b>4</b>  |
| <b>Anonymous ftp.....</b>  | <b>7</b>  |
| <b>Electronic Bulletin Board Services .....</b>  | <b>9</b>  |
| <b>Electronic Conferencing .....</b>   | <b>9</b>  |
| <b>List Servers/ Information Sources .....</b>   | <b>10</b> |
| <b>Network Information.....</b>  | <b>10</b> |
| <b>Reference Services .....</b>  | <b>11</b> |
| <b>USEnet News.....</b>  | <b>12</b> |
| <b>The DOE Automated Departmental Directives System (ADDS)..</b>   | <b>13</b> |
| <b>The National Institute of Standards and Technology (NIST)<br/>Electronic Bulletin Board Services .....</b>          | <b>13</b> |
| <b>The DOE Computer Incident Advisory Capability (CIAC) File<br/>Server and Electronic Bulletin Board System .....</b> | <b>13</b> |
| <b>The National Computer Security Center (NCSC).....</b>   | <b>14</b> |

|  |          |
|--|----------|
| <b>Appendix A</b> .....                                    | <b>1</b> |
| Glossary and Notation .....                                | 1        |
| Anonymous ftp Sites.....                                   | 4        |
| BBSs .....   | 11       |
| IRC (Internet Relay Chat) Conferencing .....               | 12       |
| List Servers/Information Sources .....                     | 13       |
| Network Information .....                                  | 14       |
| Reference Services.....                                    | 15       |
| Remailers.....   | 21       |
| USEnet News.....   | 22       |
| Mail Help.....   | 23       |
| ftp Help .....   | 24       |
| List Server Commands .....                                 | 25       |
| rn Help.....   | 30       |
| CIAC Electronic Bulletin Board and ftp Summary Guide ..... | 32       |
| DOCKMASTER Resource Guide.....                             | 35       |
| Mail Example.....  | 38       |
| eff Anonymous ftp Example.....                             | 39       |
| rn Example .....   | 42       |
| NIST Dial Up Electronic Bulletin Board System Example..... | 44       |
| CIAC Anonymous ftp Example.....                            | 48       |
| CIAC Electronic Bulletin Board System Example .....        | 51       |
| References .....   | 55       |
| <br><b>Appendix B</b>                                      |          |
| Contacting CIAC.....                                       | 1        |

---

# Electronic Resources for Security Related Information

---

## Abstract

The quantity, quality, and availability of electronic resources is multiplying rapidly. Information Technology (IT) security professionals must make timely and effective use of these resources if they are to contain the growing threats of globally networked attackers. This paper outlines the threats, including recent examples, and then provides multi-level descriptions of the abundant resources available to the information technology security community. These descriptions are valuable to everyone from networking novices to sophisticated experts. While the information is useful for the entire security community, this paper pays particular attention to Department of Energy requirements.

---

## Introduction

Information Technology (IT) security professionals are battling network attackers. Each of the professionals—from the operations level down to the assistant computer security officer, whether classified or unclassified, manager or user—must maintain their ability to recognize the threat and acquire the appropriate countermeasures. They must gain and maintain knowledge and ability to use the ever increasing resources—on parity with the attackers. This paper opens the door for the novice and enlarges the opening for the expert. It increases the reader's threat awareness and enables effective and efficient use of the resources that attackers will certainly use against us. In short, cognizance of electronic resources is critical—they are the common ground of both information technology threats and countermeasures. The attackers use the resources with abundant facility; we must become at least as proficient. The remainder of this section sets the perspective of the exposition that follows.

Over two decades ago, the futurist Marshall McLuan made the (since oft-quoted) observation that “the electronic interconnections will make the Earth a global village.” It was a brilliant metaphor and qualitatively predicted the electronic way of life for many of us. What is far more problematic is the quantitative impact of the electronic interconnections on what we do—specifically, ensuring secure networking and computation for our constituents.

## Electronic Resources for Security Related Information, Continued

The network<sup>1</sup> is the product of a rapidly developing technology and the need to interconnect information resources. As a recent phenomenon without historical precedence and paradigm, it raises new challenges to our abilities to manage vast resources. Often, the incremental cost of obtaining valuable information is insignificant. A document available on the network is an inexhaustible supply of its own copies. Most users are not only in instantaneous contact with each other, but with each other's private and public databases and other online information.

It is estimated<sup>2</sup> that there are over three million nodes on the Internet—the network of networks that links a significant portion of the Earth's intellectual community. Each machine on the Internet has between one and many thousands of users and these machines are found just about anywhere on the planet. In principle, any user on any node can access or transfer information to or from any other node, use its resources, and even log in to it.<sup>3</sup>

To the novice, this myriad of actual and potential connections, this diversity of protocols, this spectrum of philosophies is an incomprehensible maze. Remarkably, with a little training and a modest amount of determination bolstered by need, the electronic world opens a new facility in communications as well as a vast store of information. To obtain a true perspective of its expanse and appreciation of its capabilities, one must *experience* the network.

---

### The Threats

The average computer attacker<sup>4</sup> is no more a technological genius than the average driver is a brilliant automotive engineer. The danger is not so much his<sup>5</sup> native intelligence as his acquired knowledge, training, and facility with the network structures. Notwithstanding the legal, moral, ethical, and pragmatic issues, trying to reduce the free flow of questionable information on the network would be unmanageable at best, trying to eliminate it would be unimaginable. Our goal as security professionals is recognition and understanding of the threats.

Attackers gain both qualitative and quantitative advantages from their facility with the network. Qualitatively, they have access to extremely effective communications channels. The Internet Relay Chat (IRC) allows them to anonymously and openly discuss whatever they want at minimal (if any) cost, while simultaneously being able to (surreptitiously) exchange private correspondences of any kind. For example, someone creates an accurate and instantly updatable index of online cracking tools and then posts it on the network, making it (and unlimited copies) immediately available to the global cracking community.

---

<sup>1</sup> The network for the purpose of this discussion is a generic term signifying the many methods of electronic interconnections. The conceptual domain is sometimes referred to as "cyberspace."

<sup>2</sup> Recent estimates by reliable sources; there is no way to know for certain.

<sup>3</sup> In practice, of course, many of the nodes have some degree of security which prohibits some or all levels of arbitrary access.

<sup>4</sup> This document's term for an electronic criminal; other, possibly more ambiguous terms are *hacker*, *intruder*, *cyberpunk*, *phreak*, and so on.

<sup>5</sup> The masculine pronoun with neutral intent is used for rhetorical smoothness. I find *s/he*, *his/her*, *his or her* awkward and distracting.

## Electronic Resources for Security Related Information, Continued

This also highlights the quantitative aspect of the attacker advantage. The amount of time individuals save by immediately taking advantage of each other's efforts is immeasurable. They often use free<sup>6</sup> resources and appear to have abundant personal time. Attackers frequently use personal computers as well as computer accounts on obliging or compromised systems to search the network for vulnerabilities.

---

### Examples

Early in 1994, the Internet experienced a continuing series of “sniffer” attacks. That is, attackers compromised host systems, installed software that monitored and recorded specific Local Area Network transactions that included host name/user name/password combinations. Some intruders evaded detection through the use of sophisticated Trojan software. It only took a one or a few talented individuals to create the software and techniques that were then used by many to compromise at the least hundreds of thousands<sup>7</sup> of accounts.

A full time physicist and part time computer security expert discovered a significant security vulnerability. It was in a popular operating system on a popular workstation. He wrote a program to exploit the vulnerability, complete with detailed comments, and submitted it to the vendor of the workstation as well as reliable computer security groups. The vendor responded and eventually created a patch to fix the vulnerability. Ironically, the program fell into attacker hands—we still do not know how, and is widely being used to exploit unpatched workstations. Evidently, the attackers can circulate the program quicker than the security community can disseminate the countermeasures.

---

<sup>6</sup> Clearly any resource has a cost; chances are the crackers are not paying. When the marginal costs are so low, there is no economical way of recovering them at the user level—they are absorbed as institutional overhead.

<sup>7</sup> CERT estimate.



## Electronic Resources for Security Related Information, Continued

The Electronic Frontier Foundation<sup>8</sup>, a non profit organization created to promote the free exchange of information on the network (among other things), provides a repository for “Computer Underground Digest” (CUD) publications. Literary merit notwithstanding, these (quasi) periodicals frequently contain significant attacker information, including detailed methodologies on defeating toll call controls (Phone Phreaking), a complete list of credit card prefixes, intimate information on computer and network vulnerabilities, and so on. To get a feel for the authors’ level of defiance and perversity, one publication has detailed and accurate instructions on the construction of a light bulb bomb; another on how to manufacture nitroglycerine. Recently, someone posted a comprehensive index to the CUD—a substantial time and labor saving compendium for attackers.

The IRC links attackers from everywhere; they can exchange information (figuratively) across the table or under the table—in real time. Recently, user name password pairs from newly compromised university computer systems were openly posted on the IRC channel #hack.

---

### Resources and Counter-measures

We will discuss several major network resources; there are others that may be found in the references at the end of this document; and there are still others that may be discovered simply by browsing the network. At the introduction of each resource, we will offer suggestions of how the resource may be used to counter attackers and other possible adverse activities. Of course, any technology that makes you more efficient and effective will help achieve that goal.

There is no single expert on all network resources. There is no single up-to-date compendium. There is no single structure that governs or manages all resources. The network is both planned and unplanned—with formal, defacto, and sometimes incompatible standards. Its growth is both revolutionary and evolutionary. This document provides a high level view of a selected subset of resources and services, providing sufficient detail for the novice to get started and most sophisticated users to learn something new.

---

<sup>8</sup> The EFF provides an open, uncensored service with significant value to the general community as well as information security professionals.

## Electronic Resources for Security Related Information, Continued

Electronic mail (E-mail) delivers messages between physically distant points, often within minutes. File transfer copies information at hundreds or thousands (or greater) characters per second.<sup>9</sup> The USEnet news group service provides an open electronic exchange of information in thousands of special interest groups. The IRC provides conferencing where special interest groups meet electronically to “chat” and exchange information.<sup>10</sup> Electronic Bulletin Board Services (BBS) are a relatively mature and stable method of information exchange. Electronic list servers provide moderated and unmoderated collection and dissemination of contributor supplied information on specific topics. There are electronic reference services that allow a user to hierarchically search the entire spectrum of network resources for specific subjects or services. Finally, there is a network information provider.

For information technology security specialists, discovering that attackers routinely exploit these network resources is the first step. Appreciating their strategic and tactical value is the next. The third step is learning how to use them. Experienced IT specialists, even those unfamiliar with Unix, TCP/IP, and/or the Internet, will find that the network is a timely and powerful strategic asset; a remarkably effective system of communication requiring their serious attention.

The following sections introduce each of the resources mentioned above<sup>11</sup> (E-mail first, the remainder in alphabetical order). The best and most effective way to learn is by doing. Examples and help texts for ftp and rn appear in the appendices. This is a rapidly emerging suite of resources, where good, up to date documentation is scarce. Even the online documentation tends to age quickly—and is usually only updated as an afterthought.

---

---

<sup>9</sup> The proposed National Information Infrastructure (NII) calls for transfer rates of gigabits/second.

<sup>10</sup> The conceptual location of the “chat,” since it is physically distributed among terminals and computers, is an excellent example of “cyberspace.”

<sup>11</sup> It is assumed for pedagogic purposes that the reader is familiar with the commands or languages cited. The appendix has specific examples as well as help listings.

## Electronic Resources for Security Related Information, Continued

---

### Electronic Mail

Electronic mail (E-mail) is the network's answer to "telephone tag," the seemingly interminable exchange of "please return my call" messages without direct communications. E-mail allows an individual to consider and reply to each message in his or her own time. It also allows tracking, filing, and other computer aided manipulations. All computer incident handling teams use E-mail to distribute their bulletins and advisories and communicate with each other, and most of the technical community<sup>12</sup>.

E-mail is the most popular form of electronic exchange. If a location has any network access at all, it will have E-mail. There are several addressing schemes; we will consider only the popular and common hierarchical Internet form:

`user@localhost.subdomain1...subdomainn.topdomain`

which reads *user* at *localhost* in *subdomain<sub>1</sub>* in ... in *subdomain<sub>n</sub>* in *topdomain*. For example:

`joe@bigboy.xyzlab.gov`

which is user *joe* on host *bigboy* in subdomain *xyzlab* in the *government* domain. Mail applications vary, but they usually have addressing to individuals or lists, carbon copies, subject field specification, replying, forwarding, and from and date information in the header. They may also have blind carbon copies, binary file attachment, and message ID, received, resent from, and reply to in the header.

The command<sup>13</sup> to read mail is:

***mail [-options]***

The command to send mail is:

***mail [-options] recipient\_list***

Help is available by typing ***man mail*** at the command prompt or ***?*** prompt from within mail.

---

<sup>12</sup> Various groups are addressing issues of confidentiality and integrity; there are interim solutions.

<sup>13</sup> Commands are assumed to be UNIX unless otherwise specified.

## Electronic Resources for Security Related Information, Continued

You may E-mail anonymously through services offered by willing volunteer sites, called “remailers.” One such remailer is located at nowhere@bsu-cs.bsu.edu, and is operated by Chael Hall. (A list of some other sites appears in the appendix.) It guarantees anonymity and is simple to use. To use this service, make sure that the first two lines of your message contain the following:

```
first line      ::  
second line    Request-Remailing-To: fergp@sytex.com
```

Modify any .sig or .mailsig files to suppress signature additions before sending the message. This would reveal your identity.

---

### Anonymous ftp

Anonymous ftp is the network’s main library facilitator—either directly, or more recently serving as a partial basis for the reference services. It opens a remarkably cooperative, extremely low cost, timely, ever increasing, and loosely coupled store of valuable (and not so valuable) information. Not only is there abundant information directly relevant for information technology security specialists, but there is the potential to effectively share greater quantities. For example, all bulletins of the incident response teams, shareware, and freeware<sup>14</sup> are readily available from multiple anonymous ftp sites. It is equally as important for the security specialist to keep abreast of the attacker information also available from anonymous ftp sites. Ironically, some of the sites provide both kinds of information in the spirit of a completely open network.

Anonymous ftp is a special instance of the TCP/IP file transfer protocol, requiring only a user name of “anonymous”—if allowed by the remote site. The password is by convention expected to be your Internet address and user name. Anonymous ftp sites are often library repositories. If the directory is not known beforehand, /pub is usually a good place to start and then you can search down hierarchically.

---

<sup>14</sup> Shareware is software for which the author requests a nominal fee if the user is satisfied with the product. Freeware is software distributed without cost as a public service.

## Electronic Resources for Security Related Information, Continued

To connect to the remote system targ.sub.dom, enter:

***ftp targ.sub.dom***

At the user name prompt, enter your Internet address. For example:

***hero@good.guy.gov***

You can now list the top level directory:

***ls [-l]***

With the -l option, lines that begin with the character “d” will be subdirectories. You can change directories by entering:

***cd <directory name>***

Print the current working directory:

***pwd***

Copy a file:

***get <file name>***

Send a file:

***put <file name>***

And terminate the session:

***quit***

Some systems provide introductory or “tidbit” information through the finger command; its format is:

***finger @<remote host name>***

or

***finger <username>@<remote host name>***

---

## Electronic Resources for Security Related Information, Continued

---

### Electronic Bulletin Board Services

Security specialists use electronic bulletin board services (BBSs) as an alternative or in conjunction with E-mail and anonymous ftp. They can “meet” and correspond with other specialists, obtain security bulletins and software, and learn of the latest threats and countermeasures. The CIAC bulletin board service is a good example.

Electronic bulletin board services are usually accessed through dial up telephone, data network (such as X.25), or occasionally by Internet. These services tend to be PC oriented and require a suitable terminal package. Workstations and timesharing systems with out-dialing capabilities may also be used. CIAC, NIST, and the NCSC (through DOCKMASTER) provide electronic bulletin board (among other) services.

---

### Electronic Conferencing

Electronic conferencing is effectively exploited by the attacker community and other special interest groups. IT security use has been for the most part using it to passively learn about new threats. It is an effective means of immediate, value added communications between physically (and perhaps socially) separate individuals.

Electronic conferencing has been enhanced with the recent development of the Internet Relay Chat (IRC) software. Your local computer (PC, Macintosh, workstation, timesharing system) must obtain the (public domain) software from one of the anonymous ftp sites listed in the appendix, or from some other source. Assuming you have Internet access, you then connect to one of the listed regional servers—preferably the geographically closest. If your local machine does not have the client software, you can telnet to the site listed in the appendix to achieve IRC access. Once connected, you may then view and select channels on which to “chat.” To maintain anonymity, use a “handle” rather than your real name if you decide to listen into channel #hack. Also, the server will reveal your Internet location to anyone inquiring—unless you go through the telnet server.

Information flow on IRC tends to be sporadic and frequently flies off on tangents. You can however, initiate a session, invoke recording to disk, and leave it unattended. Other channel participants may notice this, object, and terminate your connections. As a countermeasure, participants have created ‘bots (for robots): script programs designed to appear like a real person listening and making comments. Finally, information may be surreptitiously exchanged between other members of the channel.

---

## Electronic Resources for Security Related Information, Continued

---

### List Servers/ Information Sources

List servers provide the security specialist with timely, topic specific information on narrowly defined subjects. Examples include viruses (Virus-L), means of safely connecting to the network (Firewalls), and the risks of computer and network systems (RISKS digest).

List servers are electronic mailing lists provided to (qualified) individuals. Moderated lists require that each message be reviewed by a moderator before being resent to the mailing list; on unmoderated lists, all submissions are automatically resent to everyone. Digests are moderated lists that combine all significant messages into periodic mailings. Unless otherwise indicated, you may subscribe to a list by sending an E-mail message to the subscription with the single line:

*subscribe listname*

in the text (not subject) portion of the message. The list will then be sent to the address from which you requested the subscription.

---

### Network Information

The Network Information Center provides registration information for nodes on the Internet. It is frequently used to find a responsible system administrator for a host that may be attacking a location. Such information includes one or more names, addresses, telephone numbers, and electronic mail addresses.

Network information is provided by the Network Information Center at:

*rs.internic.net*

You may *telnet* to that address and you will be automatically logged in. The system will show you a help screen and you may then enter commands to get information on users and addresses. The principle command is:

*whois domain*

or

*whois subdomain*

You may obtain similar information concerning European hosts by telnetting to:

*whois.ripe.net*

---

## Electronic Resources for Security Related Information, Continued

### Reference Services

---

Reference services are emerging as value added facilities to search through the ever increasing quantities of information available through the Internet. They have the potential to do everything from locating a source of Macintosh anti-viral software to providing the weather report for a city that you're visiting tomorrow.

There are several information servers that allow you to browse the network.

- **“Archie”** is an information locator with which you locate anonymous ftp files. At last count, it could locate 150 gigabytes of information at over 1000 sites. There are a variety of ways to connect, the simplest being where you telnet to one of the server sites listed in the appendix and log in as “archie” (no password is required).
  - **“Gopher”** is an Internet resource locator. Its preferred access is through client software on a PC or workstation, but it can be accessed through telnet from a terminal.
  - The **“Wide Area Information Server”** (WAIS) is a text retrieval system freely available from Thinking Machines Corporation.
  - The **“World Wide Web”** (WWW or W3) provides for the global sharing of academic information. Its source is available through anonymous ftp from CERN. Its growth has exploded in the last year (1994).
  - **“Mosaic”** is a rapidly growing, popular “hypermedia” implementation of WWW. According to its creators, it is “an Internet-based global hypermedia browser that allows you to discover, retrieve, and display documents and data from all over the Internet.” It appears to be emerging as a potential de facto standard. Mosaic has the added virtue that it can reference most other services, such as Gopher and ftp (see the appendix in this document).
  - **“Hytelnet”** is a library catalog reference service.
-



## Electronic Resources for Security Related Information, Continued

---

### USEnet News

USEnet news is the interactive news service of the network. The security specialist can selectively read postings on computer security, viruses, privacy issues, attacker methodologies (by the attackers), specific hardware and software, and so on. The specialist can correspond with the authors either privately or through the news service. USEnet is an excellent way of not only learning what's happening, but meeting contemporaries. As with any news source, one should independently verify the information.<sup>15</sup>

USEnet news (sometimes referred to as netnews) is selectively accessed through various news reader applications. The news groups are hierarchically defined; some major roots are listed in the appendix. The news reader application for the purposes this discussion is *rn*.

Netnews is a methodology for exchanging information on a common topic. Original articles are "postings" from individuals. Readers may then post replies to postings, replies to replies, and so on. This sequence started by the original posting is called a "thread." News reader applications allow you to "kill" (eliminate) a posting, thread, or news group. Conventionally, if replies contain the text of the referenced posting, it should be indented and/or preceded by a distinguishing character, usually >. Since replies can be nested, one frequently sees postings including various levels of indentation. As a matter of practicality and courtesy, subject lines should be clear and concise.

The "rn" news reader is run by entering:

**rn**

You will be asked if you want to subscribe to recently added news groups. When that query is finished, you will then be asked to read specific groups. You can answer *yes*, *no*, or *quit*, or you can enter a news group level command. For example, to read the news group "alt.security", type:

***g alt.security***

at any point. You will then be shown the chronologically oldest article.<sup>16</sup> Note that all articles have sequential numbers. You can mark the article as read and go on by entering *k*. You can read the next article by entering *n*. You can save an article by typing *s*. You can get a list of all articles by entering *=*. There are other commands that allow you to navigate through a selected news group. You can get help by typing *h*. Note that you must first *quit* reading one news group before you can go to another. Once you are back at the selection level, there are many commands that allow you to navigate through that process. Finally, you can exit completely by typing *q* at the selection level.

---

<sup>15</sup> Forgeries (known as "spoofing") are possible and do occur occasionally.

<sup>16</sup> If you see a *--more--(x%)* prompt at the bottom of the screen and are unfamiliar with *more* protocol, note the following. Pressing the space bar advances one page and typing *q* quits reading that article. You may also type most other *rn* commands, for example *n* or *=*.

## Electronic Resources for Security Related Information, Continued

---

### **The DOE Automated Departmental Directives System (ADDs)**

The DOE Automated Departmental Directives System (ADDs) is a database of current DOE and Headquarters Orders, Notices, and Secretary of Energy Notices. It features menu-driven text search and retrieval and reports providing summaries of current and newly issued Directives. The recommended ADDs workstation is an IBM PC (or compatible) with communication software (the FTTERM File Transfer and Terminal Emulator Program is "strongly recommended"), dial out capabilities, a Hayes compatible or BISCAMP modem supporting V.22 or V.32 protocol or DPU in headquarters, and an attached printer. To register, submit DOE forms 1450.5 and 1450.5A to Chief, Human Resource Information Systems, U.S. Department of Energy, AD-123/F-109, Washington, DC 20585. For further information or questions, contact George Hofman at (301) 903-2870.

---

### **The National Institute of Standards and Technology (NIST) Electronic Bulletin Board Services**

The National Institute of Standards and Technology (NIST) maintains four electronic bulletin board systems for information exchange:

- Computer security
- Data management activities and applications
- Open Systems Interconnections standards activities
- North American Integrated Services Digital Network (ISDN) Users' Forum (NIUF)

The telephone numbers appear in the appendix of this document.

---

### **The DOE Computer Incident Advisory Capability (CIAC) File Server and Electronic Bulletin Board System**

The DOE Computer Incident Advisory Capability (CIAC) provides an electronic bulletin board service as well as anonymous ftp. These are in addition to their bulletins and advisories, which are distributed electronically, in hard copy, and (if of immediate importance) by FAX to DOE sites. The BBS and ftp services contain similar information, where the BBS is for those without Internet access. They both feature CIAC and other response team bulletins, virus information, computer security related shareware, utilities, and so on. Access information to these services appears in the appendix of this document. Use of the BBS is menu driven and self explanatory. An example of access to ftp services appears in the appendix (note that the current name "CIAC.llnl.gov" will be changing to "ciac.llnl.gov" in the near future). A draft summary document for using both resources appears in the appendix. CIAC will be publishing user documentation for both services in the future. If you need further information or help, call the CIAC hotline at (510) 422-8193.

---

## Electronic Resources for Security Related Information, Continued

---

### **The National Computer Security Center (NCSC) DOCKMASTER**

DOCKMASTER is a (Multics-based) subscription service of the National Computer Security Center (NCSC), that they consider an “Information Security Showcase.” Its large repertoire of available services (its users manual is over one hundred pages) includes E-mail, electronic bulletin boards, and allows hands-on software evaluation. Its Evaluated Products List rates computers and computer security products. Users can access online documents (such as the *Orange Book*), participate in online discussions, and learn about computer security conferences. Users can connect to DOCKMASTER through MILNET (part of the Internet), TYMNET (a packet switching service), and local dial-in. A registration packet may be requested by writing to NCSC, Fort George G. Meade, MD 20755-6000—Attn: DOCKMASTER Accounts Administrator. Note that Federal employees are “User Type 3”, contractors are “User Type 6” and the project should be “Catwalk” unless you were specifically assigned another one. The resource guide for DOCKMASTER appears in the appendix of this document. Further information is available by calling (410) 850-4446—and they are very helpful.

---

# Appendix A

## Glossary and Notation

---

[Note: Unix commands are case sensitive.]

| <u>Term</u>         | <u>Description</u>  |
|---------------------|---|
| { }                 | alternate choice for the preceding item   |
| [ ]                 | containing optional command switches; also, part of file name syntax for some anonymous ftp servers           |
| < >                 | containing descriptions of fields for commands, such as file names  |
| *                   | wildcard character in file name specification   |
| ^                   | hold down control key while depressing character following the ^  |
| ...                 | recursive wildcard directory  |
| anonymous ftp       | ftp service not requiring a secret password   |
| archie              | Internet ftp file locator reference service   |
| bbs                 | electronic bulletin board system  |
| <b>bold type</b>    | things that are particularly helpful to attackers/hackers   |
| <i>bold italics</i> | user input in examples  |
| 'bots               | (from robots) routines to simulate intelligent activity on an IRC channel                                     |
| CIAC                | (the DOE) Computer Incident Advisory Capability   |
| .com                | commercial organization Internet address domain   |
| <CR>                | carriage return—Return key pressed by user  |
| cracker             | term for computer criminal ( <i>see also</i> , hacker)  |
| CPSR                | Computer Professionals for Social Responsibility  |
| CUD                 | Computer Underground Digest   |
| cyberspace          | the conceptual location of electronic interconnections and communications                                     |
| CERT                | Computer Emergency Response Team  |
| des                 | Data Encryption Standard  |
| DNS                 | Domain Name Service—methodology/implementation for routing TCP/IP messages                                    |
| .edu                | educational institution Internet address domain   |
| EFF                 | Electronic Frontier Foundation; organization advocating open information on the Internet (among other things) |
| faq                 | frequently asked questions  |
| FCC                 | Federal Communications Commission   |
| (F/C)               | FTS and commercial telephone number   |
| finger              | Unix command to obtain user information at a local or remote host   |
| FIRST               | Forum of Incident Response and Security Teams   |
| flame               | posting critical and sometimes derogatory comments in reply to a posting                                      |
| freeware            | software freely distributed at no cost with owner maintaining all rights                                      |
| ftp                 | file transfer protocol; used to send or receive files over the Internet                                       |
| FTS                 | Federal Telephone System  |
| fyi                 | for your information  |
| gif                 | graphic file format used to exchange pictures   |

gopher

Internet resource locator

## Glossary and Notation, Continued

| <u>Term</u>    | <u>Description</u>  |
|----------------|---|
| .gov           | government agency Internet address domain   |
| hacker         | ambiguous term for computer criminal (original hackers were tinkerers in the positive sense; <i>see also</i> , cracker) |
| handle         | electronic pseudonym used for effect and/or to mask identity  |
| HP             | Hewlett-Packard   |
| HTML           | HyperText Markup Language – “mark up” language for Mosaic hypertext   |
| HTTP           | HyperText Transfer Protocol   |
| HYTELNET       | Internet library reference service  |
| IITF           | Information Infrastructure Task Force   |
| <i>italics</i> | defined terms (in text)   |
| IRC            | Internet relay chat; enhanced multi-member electronic conversation  |
| ISDN           | integrated services digital network; voice, data, etc., on the same transmission media                                  |
| ISS            | Internet Security Scanner—a tool for checking vulnerabilities   |
| IT             | Information Technology—a blanket term for computer, network, information related activities                             |
| kerberos       | DES-based encryption scheme—intuitively, a distributed security server  |
| kill           | (reading news) eliminate a posting, thread, or newsgroup  |
| MD5            | message digest algorithm for cryptographic checksums  |
| .mil           | military organization Internet address domain   |
| MIME           | Multipurpose Internet Mail Extensions   |
| mirror         | duplication of an ftp distribution site to share distribution overhead  |
| NASIRC         | NASA Automated Systems Incident Response Capability   |
| NCSC           | National Computer Security Center   |
| .net           | backbone networking organization Internet address domain  |
| NFS            | Network File System   |
| NIC            | Network Information Center; assigns/maintains Internet addresses  |
| NII            | National Information Infrastructure   |
| NIST           | National Institute of Standards and Technology  |
| .org           | non-profit organization Internet address domain   |
| OSI            | Open Systems Interconnection (networking standards)   |
| PCMCIA         | Personal Computer Memory Card International Association   |
| pem            | privacy enhanced mail   |
| pgp            | pretty good privacy (enhanced mail)   |
| phreaks        | attackers who specialize in telephone systems (freaks with a “ph”)  |
| posting        | USEnet news article   |
| /pub           | top level directory usually reserved for public anonymous ftp documents   |
| public domain  | software released into the public domain, having no owner or use restrictions   |
| remailer       | a site that forwards mail anonymously, removing any identity  |
| rfc            | request for comment; technical information notes  |
| riperm         | riordan's Internet privacy enhanced mail  |
| rn             | Unix read news utility  |
| SERT           | Security Emergency Response Team (Australia)  |
| sha            | secure hash algorithm   |
| shareware      | low cost software, freely distributed with “voluntary” payment requested from satisfied users                           |
| sysop          | system operator (especially BBS)  |
| .tar           | Unix file name suffix; Unix archive program format; use <i>tar -fx filename</i> to retrieve                             |

## Glossary and Notation, Continued

| <u>Term</u> | <u>Description</u>  |
|-------------|---|
| TCP/IP      | transport Control Protocol/Internet Protocol; networking protocol originally for Unix and now most other operating systems as well; used for the Internet |
| telnet      | remote terminal protocol; used to login to remote hosts on the Internet (primarily Unix)  |
| thread      | original posting and all subsequent replies to that posting   |
| TIS         | Trusted Information Systems—developers of pem   |
| Unix        | generic term for a number of similar operating systems originally developed by Bell Labs  |
| URL         | Uniform (sometimes Universal) Resource Locator: addresses for WWW/Mosaic  |
| .Z          | Unix file name suffix; compressed format for transmission; use <i>uncompress</i> to expand  |

---

# Anonymous ftp Sites

---

Format:

*ftp internet address:optional directory*

Log in as **anonymous**, and enter **your username and E-mail address** when prompted for a password. Directories usually begin /pub unless otherwise specified. This is not a complete list. You can often find additional information by viewing the parent directories of listed specific subdirectories. Numeric addresses, when available, appear in parentheses.

## internet address: optional directory

## Description/Comment

|  |  |
|--|--|
| ames.arc.nasa.gov:pub/SPACE                                      | NASA information, images, etc.             |
| apple.apple.com  | Apple/Macintosh                            |
| <b>aql.gatech.edu:/pub/eff/CUD<br/>(128.61.10.53)</b>            | <b>CUD</b>                                 |
| aql.gatech.edu:/pub/security/iss                                 | security utilities                         |
| archive.cis.ohio-state.edu                                       | security software                          |
| arisia.xerox.com   | message-digest software                    |
| arizona.edu  | astronomy programs                         |
| arthur.cs.purdue.edu:/pub/pcert/tools/unix<br>/netlog-1.02.tar.g | Unix security tools                        |
| arthur.cs.purdue.edu:/pub/reports<br>/TR823.PS.Z                 | password information                       |
| ashley.cs.widener.edu:/pub/src/adm<br>/shadow-3.1.4.tar.Z        | password management                        |
| aql.gatech.edu   | ISS  |
| athena-dist.mit.edu  | kerberos software                          |
| ba.com   | Bell Atlantic                              |
| bcm.tmc.edu:/pcnfs/pcnfsd.92.11.05.tar.Z                         | Sun patches                                |
| beach.utmb.edu   | anti-virus software backup site            |
| bell.com   | telecommunications information             |
| black.ox.ac.uk (129.67.1.165) :/src/security                     | security information                       |
| boombox.micro.umn.edu:/pub/gopher                                | gopher reference service software          |
| bruno.cs.colorado.edu  | ?  |
| byrd.mu.wvnet.edu /pub/ejvc<br>/EJVC.INDEX.FTP                   | Electronic Journal on Virtual Culture      |
| cert.org:/pub/virus-l/docs                                       | Virus-L documentation                      |
| cert.org:/pub/...  | security information (e.g., COPS, npasswd) |
| coast.cs.purdue.edu  | security tools archive                     |
| coast.cs.purdue.edu:/pub/aux                                     | security archive                           |
| consultant.micro.umn.edu   | electronic bookstore                       |
| coombs.anu.edu.au:/pub/irc                                       | IRC information                            |
| crl.dec.com:/pub/DEC/ultrix-faq.txt                              | Ultrix faq                                 |
| cs.bu.edu:/IRC/support   | IRC  |
| cs.bu.edu:/pub/listserv  | list server software                       |
| cs.utah.edu:/pub   | ?  |
| cs.uwp.edu:/pub/msdos/wp/passwp.zip                              | breaking WordPerfect encryption            |
| csn.org  | security, etc.                             |



## Anonymous ftp Sites, Continued

### **internet address: optional directory**

### **Description/Comment**

|  |  |
|--|--|
| cpsr.org:/cpsr/clinton   | white house documents  |
| crvax.sri.com  | RISKS digest   |
| csrc.nist.gov:pub/... (129.6.54.11)                              | NIST BBS, security bulletins, first contacts                           |
| cv.vortex.com:/privacy   | privacy forum archives   |
| dartvax.dartmouth.edu:/pub/security<br>/passwd+.tar.Z            | password security (Unix)   |
| dartmouth.edu  | security software  |
| decuac.dec.com:/pub/DEC/ultrix-faq.txt                           | Ultrix faq   |
| dftnic.gsfc.nasa.gov:[.FILES.MAC]<br>MACSECURE31.HQX{SIT}        | anti-virus software  |
| dg-rtp.rtp.dg.com(128.222.1.2)                                   | Data General security patches  |
| dhvx20.csudh.edu:/global_net                                     | global network   |
| drgate.dra.com:/pub/gpo  | GPO BBS  |
| ds.internic.net:pub/the-scientist                                | <i>The Scientist</i> (periodical)                                      |
| edcom.edu  | information technology news  |
| eees.nwu.edu   | security software  |
| emx.utexas.edu   | security software  |
| <b>etext.archive.umich.edu/pub/CuD/cud<br/>(141.211.164.18):</b> | <b>CUD</b>   |
| eugene.utmb.edu:/pub/pgp   | pgp  |
| eugene.utmb.edu:/pub/virus-software/pc{macintosh}                | anti-virus software  |
| export.lcs.mit.edu   | astronomy programs   |
| fau43.informatik.uni-erlangen.de                                 | IRC  |
| first.org:/pub   | security information   |
| freebie.engin.umich.edu  | IRC client/server software ftp site                                    |
| ftp.acsu.buffalo.edu:/pub/IRC                                    | IRC client/server software ftp site                                    |
| ftp.apple.com:ds/mac/sys.soft/imaging                            | Apple utilities  |
| ftp.bio.indiana.edu:/util/gopher                                 | gopher software  |
| ftp.bsd.com  | BSDI   |
| ftp.census.gov:/pub  | Census bureau  |
| ftp.cert.org:/pub/tools  | security tools   |
| ftp.cic.net  | Internet use instruction   |
| ftp.cisco.com/pub  | Cisco (Router/Firewall Vendor)   |
| ftp.cni.org/CNI/documents/farnet<br>/stories-index               | Coalition for Networked Information Internet<br>Information            |
| ftp.ccm.com  | security upgrades  |
| ftp.cco.caltech.edu:/pub/bjmccall                                | white house documents  |
| ftp.comlab.ox.ac.uk:/pub/Zforum                                  | Z specification language   |
| ftp.cs.berkeley.edu:ucb/sendmail                                 | security software  |
| ftp.cs.bul.nl  | foreign nodes  |
| ftp.cs.purdue.edu:/pub/spaf/...                                  | security tools   |
| ftp.cs.purdue.edu:/pub/spaf/COAST<br>/Tripwire                   | Tripwire security software   |
| ftp.cs.ttu.edu:/pub/asciiart                                     | ascii art  |
| ftp.cs.uwm.edu:pub/comp-privacy                                  | computer privacy information   |
| ftp.cs.widener.edu:/pub/zen/...                                  | Zen and the Art of the Internet: A Beginner's Guide to<br>the Internet |

## Anonymous ftp Sites, Continued

### internet address: optional directory

ftp.cs.wisc.edu:/connectivity\_table  
 ftp.cwru.edu:/security/unix-security.ps  
 ftp.delmarva.com:pub/security  
 ftp.denet.dk:/pub/misc/cm200-UFC.tar.Z  
 ftp.digital.com:/pub/Digital/info  
**ftp.ee.mu.oz.au:/pub/text/Cud/...**  
**ftp.eff.org:/pub/CUD/... (192.88.144.4)**  
 ftp.eff.org:/pub/IRC/lumberjak.shar  
 ftp.einet.net  
 ftp.eit.com:/pub/web.guide/  
 ftp.es.net:/pub/networking-info/earn  
     /nettools.ps{txt}  
 ftp.es.net:/pub/security  
 ftp.etext.org:/Zines/InterText  
 ftp.eunet.no:/pub/text/online.txt  
 ftp.fcc.gov  
 ftp.funet.fi:/pub/unix/mail/zmailer/  
 ftp@ghost.dsi.unimi.it:/pub/crypt/sci.crypt  
 ftp.greatcircle.com:pub/firewalls  
 FTP.GreatCircle.COM:pub/archive  
     /firewalls.Z  
 ftp.gwu.edu:/pub/hoffman  
 ftp.hep.net  
 ftp.inoc.dl.nec.com:pub/security/...  
 (143.101.112.3)  
 ftp.informatik.uni-hamburg.de:/pub/virus  
     /texts/security  
 ftp.informatik.uni-hamburg.de:/pub/virus  
     /texts/tests  
 ftp.informatik.uni-hamburg.de:/pub/virus  
     /texts/catalog/msdosvir.zip  
 ftp.isoc.org/isoc/charts  
 ftp.lm.com:pub/interpedia  
 ftp.maristb.marist.edu  
 ftp.ncsa.uiuc.edu  
 ftp.ncsa.uiuc.edu:/Mosaic (141.142.20.50)  
 ftp.nec.com:/pub/security/socks/cste  
 ftp.next.com /pub/NeXTanswers/Files  
**ftp.netsys.com**  
 ftp.nisc.sri.com:netinfo/interest-groups  
 ftp.nisc.sri.com:pub/zone  
 ftp.ntia.doc.gov  
 ftp.oar.net:/pub/OARnet/doc/oarsec.PS.Z  
 ftp.ox.ac.uk  
 ftp.pica.army.mil  
 ftp.pnl.gov in the directory:/pub/pninfo  
 ftp.psy.uq.oz.au:/pub/DES  
 ftp.qucis.queensu.ca:pub/dalamb/  
     college-email

### Description/Comment

international connectivity table  
 Unix security  
 firewalls information  
 password cracker  
 Digital Equipment Corporation  
**computer underground digest**  
**computer underground digest, indices, etc.**  
 IRC  
 gopher sources  
 directory of Cyberspace resources  
  
 Internet resource guides  
 security information  
 Intertext electronic periodical  
 network information—shareware book  
 FCC  
 more secure mailer (than sendmail)  
 cryptography  
 firewalls information  
  
 firewalls digest  
 cryptography  
 High Energy Physics  
  
 computer security tools  
  
 security documents  
  
 virus archives  
  
 MS-DOS virus information  
 Internet statistics  
 electronic encyclopedia  
 white house documents  
 NCSA telnet  
 Mosaic/WWW software  
 SOCKS  
 NeXT patches and security alerts  
**computer underground publications**  
 mailing lists, security, etc.  
 definitions of Internet zones  
 National Information Infrastructure  
 Internet security  
 cryptography  
 privacy issues  
 gopher software  
 des  
  
 how to find E-mail addresses

## Anonymous ftp Sites, Continued

### internet address: optional directory

### Description/Comment

|  |  |
|--|--|
| ftp.rpi.edu  | computer mediated communications                         |
| ftp.sco.com  | SCO Unix patches   |
| ftp.sei.cmu.edu: /pub/dvk/passwd.ps                              | password security  |
| ftp.senate.gov   | U.S. Senate  |
| ftp.sert.edu.au:/security/sert/tools                             | tools from Australian SERT                               |
| ftp.sgi.com:/pub/sgi/IRIX  | SGI patches  |
| ftp.sti.nasa.gov   | NASA information   |
| ftp.sura.net:pub/nic   | network guides and resources                             |
| ftp.tansu.com.au:/pub/docs/security                              | security documentation                                   |
| ftp.telebit.com:/pub/nomad/...                                   | network observations                                     |
| ftp.temple.edu:pub/info/help-net                                 | glossary of computer oriented abbreviations and acronyms |
| ftp.tis.com  | pem  |
| ftp.tis.com:pub/firewalls  | Internet firewall toolkit and papers                     |
| ftp.ucsd.edu:hamradio/packet/tcpip/crypto<br>(128.54.16.7)       | des source   |
| ftp.unl.edu:/pub/archie/clients                                  | archie client software                                   |
| ftp.unt.edu:/pub   | computer and network security information                |
| ftp.usask.ca:/pub/hytelnet/pc<br>(128.233.3.11)                  | HYTELNET software  |
| ftp.utdallas.edu:/pub/staff/billy/libguide<br>(129.110.10.1)     | Internet library guide                                   |
| ftp.uu.net   | dictionaries, astronomy programs                         |
| ftp.uu.net:/tmp/CUPindex   | CUD index  |
| ftp.uu.net:~ftp/systems/sun/sun-dist                             | sun patches  |
| ftp.win.tue.nl   | TCP security tools                                       |
| ftp.win.tue.nl:/pub/security<br>/tcp_wrappers_6.3.shar.Z         | TCP wrappers   |
| ftpserver.massey.ac.nz:/pcnfs.sun                                | sun patches  |
| furmint.nectar.cs.cmu.edu/security                               | security   |
| <b>garbo.uwasa.fi:/pc/util/wppass2.zip</b>                       | <b>breaking WordPerfect encryption</b>                   |
| gatekeeper.dec.com (16.1.0.2)                                    | Third party software for DEC systems                     |
| gatekeeper.dec.com:pub/DEC/DECinfo<br>/DECnews-EDU               | <i>DECNEWS</i> electronic periodical                     |
| gatekeeper.dec.com:/pub/DEC/ultrix-faq.txt                       | Ultrix faq   |
| gatekeeper.decwrl.com  |  |
| gate.demon.co.uk   | pgp  |
| ghost.dsi.unimi.it:/pub/crypt                                    | cryptography   |
| ghost.dsi.unimi.it:/pub/security/atp.tar.Z                       | anti-tampering program, etc.                             |
| gopher.uiuc.edu  | electronic bookstore                                     |
| gs80.sp.cs.cmu.edu:/usr/anon/public<br>/space-tech               | technical space information                              |
| hafnhaf.micro.umn.edu  | "Electronic Government Information Service"              |
| <b>halcyon.com:/pub/mirror/CUD/...</b><br><b>(202.135.191.2)</b> | <b>mirror of ftp.eff.org</b>                             |
| hopf.math.nwu.edu:pub/gn/gn-0.6.tar.Z                            | gopher software (GN)                                     |
| ibm1.cc.lehigh.edu   | Virus-L archives   |
| idlastro.gsfc.nasa.gov   | astronomy library  |
| ietf.cnri.reston.va.us:/oc/inet93                                | INET conference proceedings                              |

## Anonymous ftp Sites, Continued

### internet address: optional directory

### Description/Comment

|   |  |
|---|--|
| iitf.doc.gov  | NII  |
| info.umd.edu  | Univ. of Maryland information/programs         |
| info.umd.edu:/info/Computers/PC/Unix<br>/uuexe520.zip   | virus survey                                   |
| iraun1.ira.uka.de   | security, IRC                                  |
| CIAC.llnl.gov (128.115.19.60)   | CIAC   |
| iris1.ucis.dal.ca:pub/gif   | Voyager, Hubble, etc. GIFs                     |
| iskut.ucs.ubc.ca:/pub/Internet-drafts<br>/draft-rsads-rivest-md5-02.txt                           | MD5 description                                |
| <b>jbcondat@attmail.com</b>   | <b>Chaos digest - mail server</b>              |
| jerico.usc.edu:pub/gene/kk  | cryptographic papers                           |
| julius.cs.qub.ac.uk:pub/SpaceDigestArchive  | Space Digest                                   |
| kampi.hut.fi  | DES software                                   |
| kidd.vet.purdue.edu:/pub/users/wam<br>/docs/legal   | computer security documents                    |
| mac.archive.umich.edu   | Macintosh archives                             |
| mac.archive.umich.edu:/mac/util/encryption  | Macintosh encryption                           |
| mcafee.com  | anti-virus products                            |
| mrcnext.cso.uiuc.edu  | project Gutenberg online text                  |
| mcsun.eu.net  | windows security                               |
| more@hpcwire.ans.net  | technical news stories                         |
| naic.nasa.gov:files/general_info<br>/earn-resource-tool-guide.ps,<br>earn-resource-tool-guide.txt | network resources                              |
| nasirc.nasa.gov   | NASIRC archives                                |
| net.tamu.edu:pub/security/TAMU  | Texas AMU security tools                       |
| net-dist.mit.edu:/pub/PGP   | PGP  |
| net-dist.mit.edu:/pub/TechMail-PEM  | PEM  |
| netlib@research.att.com   | compilers                                      |
| network.ucsd.edu:intertext (128.54.16.3)  | electronic periodical                          |
| nevada.edu:/pub/liaison/govnmnt.zip   | Government information on the Internet         |
| nic.funet.fi  | network information center, Finland            |
| nic.merit.edu:documents/fyi   | network guides and resources                   |
| nis.nsf.net:/documents/rfc/...  | "requests for comments" standards              |
| nnsf.nsf.net  | Internet documents                             |
| nri.reston.va.us:/ietf  | Internet Engineering Task Force                |
| ns.ripe.net:earn/earn-resource-tool-guide.ps,<br>earn-resource-tool-guide.txt                     | network resource guide                         |
| nysernet.org:pub/resources/guides   | network guides and resources                   |
| oak.oakland.edu   | large software repository                      |
| oak.oakland.edu:pub/msdos/virus   | virus information                              |
| ocf.berkeley.edu:/pub/Library/poetry  | poetry   |
| otabbs.ota.gov  | Office of Technology Assessment (U.S. Federal) |
| pc10868.pc.cc.cmu.edu   | lists  |
| pencil.cs.missouri.edu:/pub/crypt   | pretty good privacy (enhanced mail)            |
| photo1.si.edu   | Smithsonian photos                             |
| pioneer.unm.edu:pub/info/beginner-info  | space imagery data                             |
| pit-manager.mit.edu:/pub/usenet/...   | faqs for the newsgroups                        |
| prep.ai.mit.edu   | general including fax security                 |

## Anonymous ftp Sites, Continued

### internet address: optional directory

prep.ai.mit.edu:/pub/gnu/fax-3.2.1.tar.Z  
 princeton.edu:/pub/pgp20  
 pubinfo.jpl.nasa.gov  
 pyrite.rutgers.edu  
 rascal.ics.utexas.edu:mac/virus-  
 Research.att.com:dist/Internet\_security  
**red.css.itd.umich.edu:/CUD/...**  
 rtfm.mit.edu  
 rogue.llnl.gov  
 ripem.msu.edu  
 ripem.msu.edu:pub/crypt  
 risc.ua.edu:/pub/ibm-anti-virus  
 rpub.cl.msu.edu  
 rsa.com:/pub/...  
 rsa.com:/rsaref/dist/930105  
 rtfm.mit.edu:/pub/usenet  
 rutgers.edu  
 sl.gov:/pub/socks.tar.Z  
 s6k.boulder.ibm.com  
 sc.tamu.edu:pub/security/TAMU  
 sipb.mit.edu:/pub/diswww/diswww.tar.gz  
 slopoke.mlb.semi.harris.com:/pub/IRC  
 soda.berkeley.edu:/pub/cyberpunks  
 soda.berkeley.edu:/pub/cyberpunks/pgp  
 software.watson.ibm.com  
 solbourne.solbourne.com  
 src.doc.ic.ac.uk:/computing/comms/irc  
 src.doc.ic.ac.uk:/public/sun/pc-nfs  
     /pcnfsd.92.11.05.tar.Z  
 src-aux.src.umd.edu  
 sumex-aim.stanford.edu  
 sumex-aim.stanford.edu:/info-mac/virus  
 sunsite.unc.edu  
 sunsite.unc.edu:/home3/wais  
     /white-house-papers  
 sunsolve1.sun.com:/pub/patches  
 sl.gov  
 techreports.larc.nasa.gov:pub/techreports  
     /larc/92  
 thumper.bellcore.com:/pub/skey  
 thumper.bellcore.com:/pub/crypt  
 Town.Hall.Org  
 uiunix.ui.org  
 una.hh.lib.umich.edu:/inetdirsstacks  
 unma.unm.edu  
 urvax.urich.edu:[MSDOS.ANTI-VIRUS]  
     /info-mac/virusux1.cso.uiuc.edu:  
     /pc/virus

### Description/Comment

net fax software  
 pretty good privacy (enhanced mail)  
 JPL  
 security mailing list  
 anti-virus software  
 papers on firewalls and break ins  
**mirror of ftp.eff.org**  
 computer security information  
 DECnet security tools  
 ripem programs  
 encryption software  
 anti-virus software  
 RSAREF  
 cryptography  
 RIPEM, RSAREF  
 USEnet faq archive  
 Columbia University Appletalk  
 Unix security  
 IBM security fixes  
 network security tools  
 electronic conferencing source (Discuss)  
 IRC client/server software ftp site  
 remailer usage  
 pgp  
 IBM fixes  
 Solbourne information (including security fixes)  
 IRC information  
  
 Sun patches  
 Macintosh information/software  
 Apple software  
 anti-virus software  
 linux fixes  
  
 white house documents  
 SUN patches  
 security software  
  
 NASA technical reports  
 s/key one time password software  
 cryptography  
 Edgar—Securities and Exchange information  
 Unix standards  
 Internet resource guides  
 ethics, policy, legislation  
  
 anti-virus software

## Anonymous ftp Sites, Continued

### **internet address: optional directory**

### **Description/Comment**

|   |                             |
|---|-----------------------------|
| ucsd.edu:/hamradio/packet/tcpip/crypto<br>/des.tar.Z                          | DES code                    |
| uunet.uu.net:comp.sources.misc<br>/volume23/smiley/part01.Z                   | smiley sources              |
| venera.isi.edu  | DNS tools                   |
| vitruvius.cecer.army.mil  | binary gifs                 |
| van-bc.wimsey.bc.ca:/pub/crypto/PGP-2.1                                       | pgp                         |
| world.std.com:/OBS<br>/The.Internet.Companion/                                | Internet documentation      |
| wsmr-simtel20.army.mil  | large software repository   |
| wsmr-simtel20.army.mil:PD1:<br><MSDOS.TROJAN-PRO><br>{PD3:<MACINTOSH.VIRUS>}  | anti-virus software         |
| wuarchive.wustl.edu   | largest software repository |
| wuarchive.wustl.edu.: /doc/misc/*   | documentation               |
| wuarchive.wustl.edu:ftp/usenet<br>/comp.virus/*                               | unix security               |
| wuarchive.wustl.edu:usenet<br>/comp.sources.misc/volume23<br>/smiley/part01.Z | smiley sources              |

### **Finger Sources**

These are usually electronic “tidbits” you may obtain by typing:

***finger <sourcename>***

For example, to obtain local Livermore, CA weather, type:

***finger weather@icaen.llnl.gov***

---

## BBSs

---

| <b><u>BBS</u></b>  | <b><u>Access Methods</u></b>  |
|--|---|
| cc:Mail BBS  | (415) 691-0401  |
| CIAC   | (510) 423-4573 (1200/2400 baud); (510) 423-3331 (9600 baud)   |
| U.S. Commerce Department<br>Internet access  | (202) 482-3870 (2400 baud); (202) 482-2167 (9600 baud)<br>Telnet to "ebb.stat-usa"  |
| Fedworld BBS, access to<br>federal information services,<br>versatile, complex     | (703) 321-8020 (sys op (703) 487-4608))   |
| IITF bulletin board<br>Backup<br>Internet access<br>Questions                      | (202) 501-1920<br>(202) 482-1199<br>Telnet to "iitf.doc.gov" and log in as <i><b>gopher</b></i><br>(202) 482-1835; E-mail cfranz@ntia.doc.gov                             |
| NIST computer security<br>Internet access  | (301) 948-5717 (2400 baud or less); (301) 948-5140 (9600 baud)<br>Telnet to "cs-bbs.ncsl.nist.gov" (129.6.54.30)  |
| NIST data management activities<br>and applications                                | (301) 948-2048 or (301) 948-2059 (2400 baud or less)  |
| NIST open systems<br>interconnection standards                                     | (301) 869-8630 (2400 baud or less)  |
| NIST North American Integrated<br>Services Digital Network<br>User's Forum         | (301) 869-7281 (2400 baud or less)  |
| The Privacy Rights Clearinghouse<br>BBS  | Direct access: (619) 260-4670<br>At the local prompt enter <i><b>c teetot</b></i><br>At the login prompt enter <i><b>privacy</b></i><br>Follow instructions for new users |
| Internet access  | Telnet to "teetot.acusd.edu" and follow the above steps   |
| Read the USEnet newsgroup "alt.bbs" for information about bulletin board services. |   |

---

# IRC (Internet Relay Chat) Conferencing

---

| <u>Location</u>                        | <u>Description</u>   |
|--|--|
| <b>#hack</b>                           | <b>attacker channel (there are many other channels, most legitimate)</b> |
| <b>bradenville.andrew.cmu.edu</b>      | <b>telnet server</b>   |
| <b>cc.nsysu.edu.tw</b>                 | <b>telnet server - login: IRC</b>  |
| <b>chatsubo.nerce.gov:login bbs</b>    | <b>telnet server</b>   |
| <b>ircserver.itc.univie.ac.at 6668</b> | <b>telnet server</b>   |
| <b>IRC.ibmpercug.co.uk 9999</b>        | <b>telnet server</b>   |
| <b>IRC.santafe.edu</b>                 | <b>telnet server - login: IRC</b>  |
| cs.bu.edu:/IRC/clients                 | IRC client/server software ftp site                                      |
| ftp.acsu.buffalo.edu:/pub/IRC          | IRC client/server software ftp site                                      |
| freebie.engin.umich.edu                | IRC client/server software ftp site                                      |
| slopoke.mlb.semi.harris.com:/pub/IRC   | IRC client/server software ftp site                                      |
| (US)badger.ugcs.caltech.edu            | IRC server site (US)   |
| csd.bu.edu                             | IRC server site (East Coast US)  |
| disuns2.epfl.ch                        | IRC server site (Switzerland)  |
| IRC.caltech.edu                        | IRC server site (West Coast US)  |
| munagin.ee.mu.oz.au                    | IRC server site (Australia)  |
| nic.funet.fi                           | IRC server site (Finland)  |
| penfold.ece.uiuc.edu                   | IRC server site (Midwest US)   |
| sunsystem2.informatik.tu-muenchen.de   | IRC server site (Germany)  |
| ucsu.colorado.edu                      | IRC server site (US)   |
| ug.cs.dal.ca                           | IRC server site (Canada)   |

---



## List Servers/Information Sources

---

### List Server/Source

#### **bugtraq-request@fc.net**

cert@cert.org  
cert@cert.org  
ciac-listproc@llnl.gov  
ciac-listproc@llnl.gov  
comp-privacy-request@pica.army.mil  
gopher-news-request@boombox.  
micro.umn.edu  
interpedia-request@telerama.lm.com  
isoc@nri.reston.va.us  
listproc@educum.edu  
listserv@itocsivm.csi.it

LISTSERV@KENTVM.BITNET

LISTSERV@LEHIGH.EDU

LISTSERV@LEHIGH.EDU

#### **listserv@vmd.cso.uiuc.edu**

mac-security-request@eclectic.com  
Majordomo@GreatCircle.COM  
majordomo@is.internic.net  
Majordomo@Lists.EUnet.fi  
Majordomo@net.tamu.edu  
majordomo@nsmx.rutgers.edu  
pem-dev-request@tis.com  
pem-info@tis.com  
**phrack@well.sf.ca.us**  
privacy-request@cv.vortex.com  
risks-request@csl.sri.com  
security-alert@flatline.corp.sun.com  
security-features@sun.com  
**tk0jut2@mvs.cso.niu.edu**  
dds.hacktic.nl

### Description

#### **bugtraq**

CERT - advisories  
CERT - tools  
CIAC - bulletin  
CIAC - notes  
computer privacy digest subscription  
  
gopher news subscription  
Interpedia online encyclopedia  
Internet Society News  
EDUCOM information technology news  
Network Information Retrieval and Online Public  
Access Catalogs  
HYTEL-L list sever (Internet library guide)  
MS-DOS viruses; ***SUB VIRUS-L yourfullname***  
MS-DOS viruses alert; ***SUB VALERT-L***  
***yourfullname***  
**CUD, *SUB CUDIGEST YOUR NAME***  
Macintosh security subscription  
firewalls and firewalls-digest subscription  
scout-report, weekly happenings  
cryptography; SUBSCRIBE CYPHERWONKS  
academic-firewalls  
www-security  
pem subscription  
privacy enhanced mail information  
**Phrack periodical**  
privacy forum digest subscription  
risks digest subscription  
Sun security information  
Sun security alerts  
**Computer Underground Digest**  
(telnet) The Digital Cityt

## Network Information

---

Telnet to “rs.internic.net”. The primary command is:

*whois domain*

or

*whois subdomain*

---

## Reference Services

---

### Archie

Archie is used for automated anonymous ftp server searches (see anonymous ftp for client software). There are multiple file locator sites (telnet to site and log in as *archie*):

archie.rutgers.edu (Rutgers University)  
archie.unl.edu (University of Nebraska in Lincoln)  
archie.sura.net (SURAnet archie server)  
archie.ans.net (ANS archie server)

---

### Gopher (Internet Resource Server)

- **Client software:**

boombox.micro.umn.edu:/pub/gopher  
ftp.bio.indiana.edu:/util/gopher

- **Telnet access:**

consultant.micro.umn.edu (134.84.132.4)  
gopher.uiuc.edu (128.174.33.160)  
panda.uiowa.edu (128.255.40.201)

- **Servers:**

ace.esusda.gov – Americans Communicating Electronically (Department of Agriculture)  
aclu.org – ACLU  
ba.com – Bell Atlantic  
bell.com – telecommunications information  
csbh.com – Computer Solutions by Hawkinson  
cix.org – commercial information  
cwis.usc.edu – Gopher Jewels  
dewey.lib.ncsu.edu – North Carolina State University Library  
ds.internic.net – InterNIC network information service  
educom.edu – EDUCOM Documents and News  
fatty.law.cornell.edu – Cornell Law School  
fedix.fie.com – Federal Info. Exchange (FEDIX)  
gopher.acusd.edu – Privacy Rights Clearinghouse  
gopher.bcm.tmc.edu – Baylor College of Medicine  
gopher.census.gov – Census bureau  
gopher.cic.net – Internet use instruction  
gopher.cic.net:Electronic Serials/Alphabetic List/e/Electronic Journal on Virtual Culture/ – Electronic Journal on Virtual Culture  
gopher.cni.org:70/11/cniftp/miscdocs/farnet – Coalition for Networked Information Internet Information  
gopher.cpsr.org – CSPR  
gopher.cs.ttu.edu – Texas Tech University  
gopher.ed.gov – Department of Education  
gopher.eff.org – EFF  
gopher.epa.gov – EPA

## Reference Services, Continued

gopher.es.net – Energy Sciences network  
gopher.esa.doc.gov – U.S. Commerce Department  
gopher.fcc.gov – FCC  
gopher.first.org – FIRST  
gopher.fonorola.net – Internet Business Journal archives  
gopher.gsfc.nasa.gov – NASA Goddard Space Flight Center  
gopher.house.gov – U.S. House of Representatives  
gopher.Internet.com – Electronic Newsstand information  
gopher.lanl.gov – Los Alamos National Laboratory  
gopher.law.csuohio.edu – Cleveland State University Law Library  
gopher.lib.umich.edu – University of Michigan Libraries, Internet  
Resource Guides  
gopher.nara.gov – National Archives  
gopher.netsys.com (port 2100) – Electronic Newsstand (problems: E-mail  
to staff@enews.com)  
gopher.nist.gov – National Institute of Standards and Technology  
gopher.ox.ac.uk: The World/Gopherspace/Alex – electronic texts  
gopher.senate.gov – U.S. Senate  
gopher-server.nist.gov – National Institute of Standards and Technology  
(NIST)  
gopher.sti.nasa.gov  
gopher.tamu.edu – Texas A&M  
gopher.tic.com – EFF-Austin/IMatrix Information and Directory Services,  
Inc. (MIDS), Austin  
gopher.town.hall.org – Internet radio  
gopher.undp.org – United Nations  
gopher.unr.edu – University of Nevada  
gopher.vortex.com – Vortex Technology  
gopher.well.sf.ca.us – Whole Earth 'Lectronic Magazine - The WELL's  
Gopherspace  
gopher.wired.com – public cryptography issues  
hopf.math.nwu.edu – Internet Society, gopher software  
ici.proper.com – Internet Computer Index  
ietf.CNRI.Reston.Va.US  
iitf.doc.gov – information infrastructure  
info.asu.edu – electronic periodicals and educational gopher sites  
info.learned.co.uk – *LI NewsWire* electronic periodical  
internic.net – Network Information Center Gopher  
jupiter.esd.ornl.gov – Oak Ridge National Laboratory ESD Gopher  
krakatoa.jsc.nasa.gov – Library X at Johnson Space Center  
lawnext.uchicago.edu – University of Chicago Law School  
liberty.uc.wlu.edu – Washington & Lee University (Legal)  
marketplace.com – Internet information mall  
marvel.loc.gov – Library of Congress (LC MARVEL)  
naic.nasa.gov – NASA Network Applications and Information Center  
(NAIC)  
ns.novell.com – Novell Netwire Archives  
nsth.nu.ca – electronic bookstore  
ntiaunix1.ntia.doc.gov – National Information Infrastructure  
ocs.dir.texas.gov – Department of Information Resources (State of Texas)  
pdb.pdb.bnl.gov – Brookhaven National Laboratory Protein Data Bank  
rs.internic.net – NIC

## Reference Services, Continued

sluava.slu.edu – Saint Louis University (Legal)  
SunSITE.unc.edu (152.2.22.81) – SUN information  
technology.com – NASA Mid-Continent Technology Transfer Center  
tic.com – Texas Internet Consulting  
trainmat.ncl.ac.uk – network training  
twinbrook.cis.uab.edu – Interpedia project  
ucsbuxa.ucsb.edu (port 3001) – University of California - Santa Barbara  
Library  
una.hh.lib.umich.edu – University of Michigan Internet resource guides  
vienna.hh.lib.umich.edu  
vx740.gsfc.nasa.gov – NASA Shuttle Small Payloads Info  
wired.com – writing  
wiretap.spies.com – Wiretap  
world.std.com – The World (Public Access Unix)

---

### Wide Area Information Server

brewster@think.com – E-mail for further information  
quake.think.com – telnet and sign on as “wais”  
wais.eff.org – EFF

---

### World Wide Web/Mosaic

- **Client software:**

info.cern.ch:/pub/www/WWWLineModeDefaults.tar.Z - browser source  
ftp.ncsa.uiuc.edu (141.142.20.50) – Mosaic

- **Servers (Uniform Resource Locators):**

You may access any anonymous ftp server xxx.yyy.zzz as ftp://xxx.yyy.zzz and any gopher server with the prefix gopher:// as illustrated below. The slashes (/) following the reference address delineate directory, subdirectory, ..., file name in the usual Unix notation.

gopher://aclu.org:6601/1 – ACLU  
gopher://arl.cni.org:70/11/scomm/edir – directory of electronic journals  
gopher://ba.com – Bell Atlantic  
gopher://gopher.es.net/11/pub/security – Energy Sciences network  
gopher://ntiaunix1.ntia.doc.gov:70/11s/newitems – National Information Infrastructure  
gopher://oss968.ssa.gov – Social Security Administration  
gopher://peg.cwis.uci.edu:7000/11/gopher.welcome/peg/GOPHERS/gov – U.S. Government  
gopher://rsl.ox.ac.uk:70/11/lib-corn/hunter – electronic texts  
gopher://una.hh.lib.umich.edu/11/inetdirs – University of Michigan  
http://aps.org/ – American Physical Society  
http://www.ba.com – Bell Atlantic  
http://csrc.ncsl.nist.gov/ – FIRST  
http://curia.ucc.ie/info/net/acronyms/acro.html – Acronym translator  
http://delcano.mit.edu/ – NASA planetary data  
http://delcano.mit.edu/cgi-bin/midr-query – NASA planetary data

## Reference Services, Continued

<http://dfw.net/~aleph1> – cracker home page

<http://digicash.support.nl/> – digital cash

<http://ds.internic.net/ds/dsdirofdirs.html> – InterNIC network information center

<http://educom.edu/.index.html> – *EDUCOM*

<http://first.org> – FIRST

<http://ftp.etext.org/Zines/InterText/intertext.html> – electronic periodical

<http://http2.sils.umich.edu/~lou/chhome.html> or – University of Michigan

<http://ici.proper.com> – Internet Computer Index

<http://info.acm.org/> – ACM

<http://info.cern.ch/hypertext/DataSources/bySubject/Overview.html> – WWW virtual library

<http://info.cern.ch/wit> – WIT WWW conversation software

<http://info.cern.ch/hypertext/WWW/Clients.htm> – browser programs

<http://info.cern.ch/hypertext/WWW/FAQ/Bootstrap.html> – telnet accessible browsers

<http://info.cern.ch/hypertext/WWW/Shen/ref/shen.html> – Mosaic security

<http://info.isoc.org/interop-tokyo.html> – Internet information

<http://info.learned.co.uk> – *LI NewsWire* electronic periodical

<http://jupiter.esd.ornl.gov/> – Oak Ridge National Laboratory ESD

<http://lcweb.loc.gov/homepage/lchp.html> – Library of Congress

[http://login.eunet.no/\(presno/](http://login.eunet.no/(presno/) – Online World resources handbook

<http://marketplace.com> – Internet information mall

<http://nearnet.gnn.com/GNNhome.html> – Global Network Navigator

<http://pass.wayne.edu/business.html> – business on the Internet

<http://peterhe.ulib.albany.edu/mk-docs/mk-isp.html> – list of libraries

<http://power.globalnews.com/> – PowerPC News

<http://programs.interop.com>

<http://pubweb.parc.xerox.com/map> – Xerox PARC Map Viewer

<http://pubweb.ucdavis.edu/Documents/Quotations/homepage.html> – quotations

[http://stardust.jpl.nasa.gov/pds\\_home.html](http://stardust.jpl.nasa.gov/pds_home.html) – NASA planetary data

<http://sunsite.unc.edu/ianc/index.html> – “Underground music”

<http://web.nexor.co.uk/mak/doc/robots/robots.html> – WWW robots

<http://wombat.doc.ic.ac.uk/> – Online Dictionary of Computing

<http://www-ns.rutgers.edu/www-security/index.html> – WWW security

<http://www.anl.gov/oithome.html> – Department of Energy

<http://www.census.gov/> – Census bureau

<http://www.cis.ohio-state.edu/hypertext/faq/usenet/FAQ-list.html> – USEnet faqs

<http://www.charm.net/~web/Vlib.html> – WWW page development

[http://www.commerce.net/directories/members/ns/new\\_ipower.html](http://www.commerce.net/directories/members/ns/new_ipower.html) – National Semiconductor security products

[http://www.cs.colorado.edu/homes/mcbryan/public\\_html/bb/summary.html](http://www.cs.colorado.edu/homes/mcbryan/public_html/bb/summary.html) – World-Wide WAIS-Searchable WWW Catalogs

<http://www.di.unipi.it/iconbrowser/icons.html> – Icon Browser at Pisa University

<http://www.digital.com/home.html> – Digital Equipment Corporation

<http://www.earn.net/lug/notice.html> – list servers

<http://www.ed.gov/> – Department of Education

<http://educom.edu/> – *EDUPAGE*

## Reference Services, Continued

<http://www.ee.surrey.ac.uk/edupage/edupage/> – *EDUPAGE* electronic periodical

[http://www.eecs.nwu.edu/hacker\\_crackdown/index.html](http://www.eecs.nwu.edu/hacker_crackdown/index.html) – “The Hacker Crackdown”

<http://www.eff.org/ftp/EFF> – EFF

<http://www.eit.com/web/www.guide/> – guide to Cyberspace

<http://www.ensta.fr/Internet/> – Internet “goodies”

<http://www.fedworld.gov> – U.S. Government servers

<http://www.geom.umn.edu/docs/snell/chance/welcome.html> – probability and statistics

<http://www.hp.com> – HP Main Welcome Screen

<http://www.hpcc.gov/imp95/> – High Performance Computing and Communications

<http://www.hull.ac.uk/Hull/ITTI/itti.html> – United Kingdom's Information Technology Training Initiative

<http://www.ictp.trieste.it/Canessa/whoiswho.html> – Who's Who on the Internet

<http://www.ihep.ac.cn:3000/china.html> – Peoples Republic of China

<http://www.internic.net/> – the interNIC

<http://www.internic.net/infoguide.html> – guide to Internet WWW resources

<http://www.jou.ufl.edu/commres/webjou.html> – links to newspapers

<http://www.kiae.su/www/wtr/> – Window-to-Russia

<http://www.lib.umich.edu/chhome.html> or – University of Michigan

<http://www.lib.virginia.edu/etext/ETC.html> – University of Virginia

<http://www.llnl.gov> – Lawrence Livermore National Laboratory

<http://www.media.org/> – MIT security products

<http://www.mit.edu:8008/> – electronic conferencing (Discuss)

<http://www.nara.gov> – National Archives

<http://www.ncsa.uiuc.edu/SDG/Software/Mosaic/Docs/whats-new.html> – new server announcements

<http://www.netmarket.com/> – encrypted Mosaic

<http://www.openmarket.com/info/Internet-index/current.html> Internet tidbits

<http://www.ornl.gov/> – Oak Ridge National Laboratory

<http://www.research.att.com/> – ATT Bell Labs

<http://www.rpi.edu/~decemj/cmc/mag/current/toc.html> – Computer-Mediated Communication Magazine

<http://www.rpi.edu/Internet/Guides/decemj/text.html> – Internet resources

<http://www.scubed.com:8001/> – IRS and state tax forms

<http://www.sei.cmu.edu/FrontDoor.html> – Software Engineering Institute

<http://www.service.com/PAW/home.html> – Palo Alto Weekly

[http://www.ssa.gov/SSA\\_Home.html](http://www.ssa.gov/SSA_Home.html) – Social Security Administration

<http://www.tansu.com.au/Info/security.html> – security information

<http://www.tansu.com.au/hypermail/index.html> – mailing list archives

<http://www.tis.com/> – Trusted Information Systems

<http://www.town.hall.org/> – Internet radio

<http://www.tu-graz.ac.at/CHCIbib> – Human Computer Interaction

<http://www.utirc.utoronto.ca:3232/HTMLdocs/NewHTML/intro.html> – HTML documentation

<http://uu-gna.mit.edu:8001/uu-gna/text/index.html> – texts for online classes

<http://www.wais.com> – Wide Area Information Server

<http://www.wais.com/wais-dbs/risks-digest.html> – risks digest

## Reference Services, Continued

<http://www.willamette.edu/~tjones/Spanish> – Spanish lessons

<http://www.wired.com> – public cryptography issues

<http://www.wsg.hp.com/> – HP Workstation Systems Group

<http://wwwhost.cc.utexas.edu/world/instruction/index.html> – instructional uses of the web

<http://130.20.92.130:8001/esh/home2.htm> – DOE Office of Environment, Safety and Health

---



# Remailers

---

|                    |    |                               |
|--------------------|----|-------------------------------|
| <b>Edited List</b> | 1  | hh@pmantis.berkeley.edu       |
|                    | 2  | hh@cicada.berkeley.edu        |
|                    | 3  | hh@soda.berkeley.edu          |
|                    | 4  | nowhere@bsu-cs.bsu.edu        |
|                    | 5  | remail@tamsun.tamu.edu        |
|                    | 6  | remail@tamaix.tamu.edu        |
|                    | 7  | ebrandt@jarthur.claremont.edu |
|                    | 8  | hal@alumni.caltech.edu        |
|                    | 9  | remailer@rebma.mn.org         |
|                    | 10 | elee7h5@rosebud.ee.uh.edu     |
|                    | 11 | phantom@mead.u.washington.edu |
|                    | 12 | hfinney@shell.portal.com      |
|                    | 13 | remailer@utter.dis.org        |
|                    | 14 | 00x@uclink.berkeley.edu       |
|                    | 15 | remail@extropia.wimsey.com    |

## Notes:

- 1 through 6: do not support encrypted headers.
- 7 through 12: support encrypted headers.
- 9, 13, 15: introduce longer than average delay; privately owned machines.
- 14: public key not yet released.
- 15: header and message must be encrypted together.

---

|               |                     |
|---------------|---------------------|
| <b>Others</b> | admin@anon.penet.fi |
|---------------|---------------------|

---

# USEnet News

---

## Relevant Major Roots

|        |  |
|--------|--|
| alt    | alternative, testing                   |
| comp   | computer related                       |
| gnu    | software from Free Software Foundation |
| ieee   | IEEE related                           |
| misc   | miscellaneous                          |
| sci    | science                                |
| talk   | discussion of specific topic           |
| vmsnet | VMS related                            |

---

## Relevant Groups

|                               |
|-------------------------------|
| <b>austin.eff</b>             |
| <b>alt.bbs.lists</b>          |
| <b>alt.irc</b>                |
| alt.privacy                   |
| alt.security                  |
| alt.security.index            |
| alt.security.pgp              |
| bit.listserv.infonets         |
| bit.listserv.virus-l          |
| comp.infosystems.gopher       |
| <b>comp.org.eff.talk</b>      |
| comp.risks                    |
| comp.security.announce        |
| comp.security.misc            |
| <b>comp.society.cu-digest</b> |
| comp.society.privacy          |
| comp.sources.binaries         |
| comp.sys.novell               |
| comp.virus                    |
| misc.security                 |
| sci.crypt                     |
| sci.virus                     |

---

# Mail Help

---

Type ? at the mail prompt to display a help listing.

|                       |  |
|-----------------------|--|
| cd [directory]        | chdir to directory or home if none given       |
| d [message list]      | delete messages                                |
| e [message list]      | edit messages                                  |
| f [message list]      | show from lines of messages                    |
| h                     | print out active message headers               |
| m [user list]         | mail to specific users                         |
| n                     | go to and type next message                    |
| p [message list]      | print messages                                 |
| pre [message list]    | make messages go back to system mailbox        |
| q                     | quit, saving unresolved messages in mbox       |
| r [message list]      | reply to sender (only) of messages             |
| R [message list]      | reply to sender and all recipients of messages |
| s [message list] file | append messages to file                        |
| t [message list]      | type messages (same as print)                  |
| top [message list]    | show top lines of messages                     |
| u [message list]      | undelete messages                              |
| v [message list]      | edit messages with display editor              |
| w [message list] file | append messages to file, without from line     |
| x                     | quit, do not change system mailbox             |
| z [-]                 | display next [previous] page of headers        |
| !                     | shell escape                                   |

A [message list] consists of integers, ranges of integers, or user names separated by spaces. If omitted, mail uses the current message.

---

## ftp Help

---

To display help about ftp, type *man ftp* at the Unix prompt.

Use these commands at the ftp> prompt:

|            |   |
|------------|---|
| append     | append to a file                              |
| bye        | terminate ftp session and exit                |
| cd         | change remote working directory               |
| close      | terminate ftp session                         |
| delete     | delete remote file                            |
| dir        | list contents of remote directory             |
| disconnect | terminate ftp session                         |
| help       | print local help information                  |
| get        | receive file                                  |
| lcd        | change local working directory                |
| ls         | nlist contents of remote directory            |
| mdelete    | delete multiple files                         |
| mdir       | list contents of multiple remote directories  |
| mget       | get multiple files                            |
| mkdir      | make directory on the remote machine          |
| mls        | nlist contents of multiple remote directories |
| mode       | set file transfer mode                        |
| mput       | send multiple files                           |
| open       | connect to remote tftp                        |
| put        | send one file                                 |
| pwd        | print working directory on remote machine     |
| status     | show current status                           |
| user       | send new user information                     |

---

# List Server Commands

---

Commands are listed in alphabetical order, with the minimum acceptable abbreviation in capital letters. Angle brackets are used to indicate optional parameters. All commands which return a file accept an optional "F=fformat" keyword (without the quotes) that lets you select the format in which you want the file sent; the default format is normally appropriate in all cases. Some esoteric, historical or seldom-used commands and options have been omitted.

## List Subscription Commands (from most to least important)

|           |  |   |
|-----------|--|---|
| SUBscribe | listname <full_name>   | Subscribe to a list, or change your name if already subscribed  |
| SIGNOFF   | listname<br>*<br>* NETWIDE   | Remove yourself: <ul style="list-style-type: none"><li>- From the specified list</li><li>- From all lists on that server</li><li>- From all lists in the network</li></ul>  |
| SET       | listname options<br>ACK/NOACK/MSGack<br>CONCEAL/NOCONCEAL<br>Files/NOFiles<br>Mail/NOMail<br>DIGests/INDEX<br><br>REPro/NOREPro<br>TOPICS: ALL<br><+/->topicname | Alter your subscription options: <ul style="list-style-type: none"><li>- Acknowledgments for postings</li><li>- Hide yourself from REVIEW</li><li>- Toggle receipt of non-mail files from the list</li><li>- Toggle receipt of mail</li><li>- Ask for digests or message indexes rather than getting messages as they are posted</li><li>- Copy of your own postings?</li><li>- Select topics you are subscribed to (add/remove one or replace entire list)</li></ul> |

## Options For Mail Headers of Incoming Postings (Choose One)

|         |  |  |
|---------|--|--|
|         | FULLhdr or FULLBsmtp<br>IETFhdr<br>SHORThdr or SHORTBsmtp<br>DUALhdr | <ul style="list-style-type: none"><li>- "Full" mail headers</li><li>- Internet-style headers</li><li>- Short (default) headers</li><li>- Dual headers, useful with PC or Mac mail programs</li></ul> |
| CONFIRM | listname1 <listname2 <...>>  | Confirm your subscription (when LISTSERV requests it)  |

## Other List-Related Commands

|       |          |   |
|-------|----------|---|
| INDEX | listname | Sends a directory of available archive files for the list, ifcpostings are archived |
|-------|----------|---|

## List Server Commands, Continued

|          |  |   |
|----------|--|---|
| Lists    | <option><br>(no option)<br>Detailed<br>Global<br><br>Global /xyz<br>SUMmary <node><br><br>SUMmary ALL<br>SUMmary TOTAL                                     | Send a list of lists as follows: <ul style="list-style-type: none"> <li>- Local lists only, one line per list</li> <li>- Local lists, full information returned in a file</li> <li>- All known lists, one line per list, sent as a (large!) file</li> <li>- Only those whose name or title contains "xyz"</li> <li>- Membership summary for all lists on specified node</li> <li>- For all nodes (long output, send request via mail!)</li> <li>- Just the total for all nodes</li> </ul>   |
| Query    | listname<br><br>*  | Query your subscription options for a particular list (use the SET command to change them) <ul style="list-style-type: none"> <li>- Query all lists you are subscribed to on that server</li> </ul>   |
| REGister | full_name<br><br>OFF   | Tell your name to LISTSERV, so that you don't have to specify it on subsequent SUBSCRIBE's<br>Make LISTSERV forget your name  |
| REVIEW   | listname <options><br>BY sort_field<br>Country<br>Name<br>NODEid<br>Userid<br>BY (field1 field2)<br><br>Countries<br>LOCal<br>Msg<br><br>NOHeader<br>Short | Get information about a list <ul style="list-style-type: none"> <li>- Sort list in a certain order:             <ul style="list-style-type: none"> <li>by country of origin</li> <li>by name (last, then first)</li> <li>by nodeid</li> <li>by userid</li> </ul> </li> <li>- You can specify more than one sort field if enclosed in parentheses: BY (NODE NAME)</li> <li>- Synonym of BY COUNTRY</li> <li>- Don't forward request to peers</li> <li>- Send reply via interactive messages (BITNET users only)</li> <li>- Don't send list header</li> <li>- Don't list subscribers</li> </ul> |
| STats    | listname <options><br>LOCal  | Get statistics about a list <ul style="list-style-type: none"> <li>- Don't forward to peers</li> </ul>  |

### Informational Commands

|         |  |  |
|---------|--|--|
| Help    |  | Obtain a list of commands  |
| Info    | <topic>                                      | Order a LISTSERV manual, or get a list of available ones (if no topic was specified)   |
| Query   | File fn ft <filelist> <options><br><br>FLags | Get date/time of last update of a file, and GET/PUT file access code <ul style="list-style-type: none"> <li>- Get additional technical data (useful when reporting problems to experts)</li> </ul> |
| RELEASE |  | Find out who maintains the server and the version of the software and network data files   |

## List Server Commands, Continued

|      |                                 |  |
|------|---------------------------------|--|
| SHOW | <function>                      | Display information as follows:                                  |
|      | ALIAS node1 <node2 <...>>       | - BITNET nodeid to Internet hostname mapping                     |
|      | BITEARN                         | - Statistics about the BITEARN NODES file                        |
|      | DISTribute                      | - Statistics about DISTRIBUTE                                    |
|      | DPATHs node1 <node2 <...>>      | - DISTRIBUTE path from that server to specified node(s)          |
|      | DPATHs *                        | - Full DISTRIBUTE path tree                                      |
|      | FIXes                           | - List of fixes installed on that server                         |
|      | LINKs node1 <node2 <...>>       | - Network links at the BITNET node(s) in question                |
|      | NADs node1 <node2 <...>>        | - Addresses LISTSERV recognizes as node administrators           |
|      | NETwork                         | - Statistics about the network                                   |
|      | NODEntry node1 <node2 <...>>    | - BITEARN NODES entry for the specified node(s)                  |
|      | NODEntry node1 /abc*/xyz        | - Just the “:xyz.” tag and all tags whose name starts with “abc” |
|      | PATHs snode node1 <node2 <...>> | - BITNET path between “snode” and the specified node(s)          |
|      | STATs                           | - Usage statistics (default option)                              |
|      | (no function)                   | - Same as SHOW STATS   |

### Commands Related to File Server Functions

|       |   |  |
|-------|---|--|
| AFD   |   | Automatic File Distribution  |
|       | ADD fn ft <filelist <prolog>>                         | Add file or generic entry to your AFD list   |
|       | DELete fn ft <filelist>                               | Delete file(s) from your AFD list (wildcards are supported)  |
|       | List  | Displays your AFD list   |
|       | For node administrators:<br>FOR user ADD/DEL/LIST etc | Perform requested function on behalf of a user you have control over (wildcards are supported for DEL and LIST)  |
| FUI   |   | File Update Information: same syntax as AFD, except that FUI ADD accepts no “prolog text”                        |
| GET   | fn ft <filelist> <options><br>PROLOGtext xxxx         | Order the specified file or package<br>- Specify a “prolog text” to be inserted on top of the file               |
| GIVE  | fn ft <filelist> <TO> user                            | Sends a file to someone else   |
| INDex | <filelist>  | Same as GET xxxx FILELIST (default is LISTSERV FILELIST)   |
| PW    | function  | Define/change a “personal password” for protecting AFD/FUI subscriptions, authenticating PUT commands, and so on |
|       | ADD firstpw   | - Define a password for the first time   |
|       | CHange newpw PW=oldpw                                 | - Change password  |
|       | DELete oldpw  | - Delete password  |

## List Server Commands, Continued

SENDme Same as GET

### Other (Advanced) Commands

|   |   |
|---|---|
| DATAbase function                           | Access LISTSERV database:   |
| Search DD=ddname                            |   |
| <ECHO=NO>                                   |   |
| List  | - Perform database search (see INFO DATABASE for more information on this)  |
| REFRESH dbname                              | - Get a list of databases available from that server  |
|   | - Refresh database index, if suitably privileged  |
| DBase                                       | Same as DATABASE  |
| DISTRIBUTE <type> <source> <dest> <options> | Distribute a file or a mail message to a list of users (see INFO DIST for more details on the syntax)               |
| Type:                                       |   |
| MAIL  | - Data is a mail message, and recipients are defined by "<dest>"  |
| FILE  | - Data is not mail, recipients are defined by "<dest>"  |
| RFC822                                      | - Data is mail and recipients are defined by the RFC822 "To:" / "cc:" fields  |
| Source:                                     |   |
| DD=ddname                                   | - Name of DDname holding the data to distribute (default: "DD=DATA")  |
| Dest:                                       |   |
| <TO> user1 <user2 <...>>                    | - List of recipients  |
| <TO> DD=ddname                              | - One recipient per line  |
| Options for the general user:               |   |
| ACK=NOne/MAIL/MSG                           | - Acknowledgement level (default: ACK=NONE)   |
| CANON=YES                                   | - "TO" list in "canonical" form (uid1 node1 uid2 node2...)  |
| DEBUG=YES                                   | - Do not actually perform the distribution; returns debug path information  |
| INFORM=MAIL                                 | - Send file delivery message to recipients via mail   |
| TRACE=YES                                   | - Same as DEBUG=YES, but file is actually distributed   |
| Options requiring privileges:               |   |
| FROM=user                                   | - File originator   |
| FROM=DD=ddname                              | - One line: "address name"  |
| FOR user command                            | Execute a command on behalf of another user (for node administrators)   |
| SERVE user                                  | Restore service to a disabled user  |
| THANKs                                      | Check if the server is alive  |
| UDD   | Access the User Directory Database (there are 18 functions and many sub-functions, so the syntax is not given here) |



## List Server Commands, Continued

### Syntax of Parameters

|           |  |
|-----------|--|
| filelist  | = 1 to 8 characters from the following set: A-Z 0-9 \$#@+_-:   |
| fformat   | = Netdata, Card, Disk, Punch, LPunch, UUencode, XXencode, VMSdump, MIME/text, MIME/Appl, Mail  |
| fn        | = same syntax as "filelist"  |
| ft        | = same syntax as "filelist"  |
| full_name | = firstname <middle_initial> surname (*not* your E-mail address)   |
| listname  | = name of an existing list   |
| node      | = BITNET nodeid or Internet hostname of a BITNET machine which has taken care of supplying a "Internet." tag in its BITEARN NODES entry      |
| pw        | = 1 to 8 characters from the set: A-Z 0-9 \$#@_-?! %   |
| user      | = Any valid RFC822 network address not longer than 80 characters; if omitted, the "hostname" part defaults to that of the command originator |

---

# rn Help

---

To display help about rn, type *man rn* at the Unix prompt

Use these commands at the Newsgroup Selection command level:

|                  |   |
|------------------|---|
| y, SP            | Do this newsgroup now.  |
| .cmd             | Do this newsgroup, executing cmd as first command.  |
| =                | Start this newsgroup, but list subjects before reading articles.                                |
| u                | Unsubscribe from this newsgroup.  |
| c                | Catch up (mark this newsgroup all read).  |
| n                | Go to the next newsgroup with unread news.  |
| N                | Go to the next newsgroup.   |
| p                | Go to the previous newsgroup with unread news.  |
| P                | Go to the previous newsgroup.   |
| -                | Go to the previously displayed newsgroup.   |
| 1                | Go to the first newsgroup.  |
| ^                | Go to the first newsgroup with unread news.   |
| \$               | Go to the last newsgroup.   |
| g name           | Go to the named newsgroup. Subscribe to new newsgroups this way too.                            |
| /pat             | Search forward for newsgroup matching pattern.  |
| ?pat             | Search backward for newsgroup matching pattern. (Use * and ? style patterns.)                   |
| l pat            | Append r to include read newsgroups.)   |
| l pat            | List unsubscribed newsgroups containing pattern.  |
| m name           | Move named newsgroup elsewhere (no name moves current newsgroup).                               |
| o pat            | Only display newsgroups matching pattern. Omit pattern to unrestricted.                         |
| a pat            | Like o, but also scans for unsubscribed newsgroups matching pattern.                            |
| L                | List current .newsrsrc.   |
| &                | Print current command line switch settings.   |
| &switch {switch} |   |
|                  | Set (or unset) more command-line switches.  |
| &&               | Print current macro definitions.  |
| &&def            | Define a new macro.   |
| !cmd             | Shell escape.   |
| q                | Quit rn.  |
| x                | Quit, restoring .newsrsrc to its state at startup of rn.  |
| ^K               | Edit the global KILL file. Use commands like /pattern/j to suppress pattern in every newsgroup. |
| v                | Print version.  |

Use these commands at the Article Selection command level:

|          |   |
|----------|---|
| n, SP    | Scan forward for next unread article.                   |
| N        | Go to next article.                                     |
| ^N       | Scan forward for next unread article with same subject. |
| p, P, ^P | Same as n, N, ^N, only going backward.                  |
| -        | Go to previously displayed article number.              |
| number   | Go to specified article.                                |

## rn Help, Continued

|                                      |   |
|--------------------------------------|---|
| range{,range}:command{:command}      | Apply one or more commands to one or more ranges of articles.<br>Ranges are of the form: number   number-number. You may use “.” for the current article, and “\$” for the last article.<br>Valid commands are: e, j, m, M, s, S, and  .                            |
| /pattern/modifiers                   | Scan forward for article containing pattern in the subject line.<br>(Use ?pat? to scan backwards; append “h” to scan headers, “a” to scan entire articles, “r” to scan read articles, “c” to make case sensitive.)  |
| /pattern/modifiers:command{:command} | Apply one or more commands to the set of articles matching pattern.<br>Use a K modifier to save entire command to the KILL file for this newsgroup. Commands “m” and “M”, if first, imply an “r” modifier.<br>Valid commands are the same as for the range command. |
| f, F                                 | Submit a followup article (F = include this article).   |
| r, R                                 | Reply through net mail (R = include this article).  |
| e dir{command}                       | Extract to directory using /bin/sh, uuencode, or specified command.   |
| s ...                                | Save to file or pipe via sh.  |
| S ...                                | Save via preferred shell.   |
| w, W                                 | Like s and S but save without the header.   |
| ...                                  | Same as s ...   |
| C                                    | Cancel this article, if yours.  |
| ^R, v                                | Restart article (v=verbose).  |
| ^X                                   | Restart article, rot13 mode.  |
| c                                    | Catch up (mark all articles as read).   |
| b                                    | Back up one page.   |
| ^L                                   | Refresh the screen. You can get back to the pager with this.  |
| X                                    | Refresh screen in rot13 mode.   |
| ^                                    | Go to first unread article. Disables subject search mode.   |
| \$                                   | Go to end of newsgroup. Disables subject search mode.   |
| #                                    | Print last article number.  |
| &                                    | Print current values of command line switches.  |
| &switch {switch}                     | Set or unset more switches.   |
| &&                                   | Print current macro definitions.  |
| &&def                                | Define a new macro.   |
| j                                    | Junk this article (mark it read). Stays at end of article.  |
| m                                    | Mark article as still unread.   |
| M                                    | Mark article as still unread upon exiting newsgroup or Y command.   |
| Y                                    | Yank back articles marked temporarily read via M.   |
| k                                    | Kill current subject (mark articles as read).   |
| K                                    | Mark current subject as read, and save command in KILL file.  |
| ^K                                   | Edit local KILL file (the one for this newsgroup).  |
| =                                    | List subjects of unread articles.   |
| u                                    | Unsubscribe from this newsgroup.  |
| q                                    | Quit this newsgroup for now.  |
| Q                                    | Quit newsgroup, staying at current newsgroup.   |

---

# CIAC Electronic Bulletin Board and ftp Summary Guide

---

The following information was provided by the guide's author. Note that the name of the anonymous ftp server will be changing to "CIAC" at a later date.

## **The FELICIA Virus Bulletin Board System and the CIAC Anonymous FTP Server Computer Security Information Sources for the DOE Community—Executive Summary**

by  
William J. Orvis

The Computer Incident Advisory Capability (CIAC) operates two file servers for the DOE community, FELICIA (formerly FELIX), and CIAC. FELICIA, is a computer Bulletin Board System (BBS) which is available via telephone using a modem. CIAC is an anonymous FTP server on the Internet. Both of these file servers contain all of the publicly available CIAC, CERT, NIST, and DDN bulletins, virus descriptions, the Virus-L moderated virus bulletin board, copies of public domain and shareware virus detection/protection software, and copies of useful public domain and shareware utility programs.

### ACCESSING FELICIA

FELICIA is a BBS connected to the telephone system. To access it with a modem and a terminal, set up your system as 8 bit, no parity, and one stop bit. The access numbers (commercial and FTS) are:

(510) 423-4753 - 2400 baud or slower  
(510) 423-3331 - 9600 baud V.32 or slower

The first time you call in, you will have to register your name and address. To download or read files, switch to the file section and follow the directions. Most of the popular downloading protocols are available, including XMODEM, YMODEM, SEALink, and Kermit.

### ACCESSING CIAC

CIAC is an anonymous FTP server on the Internet, so you must have Internet access to use it. Note that CIAC.llnl.gov will change to ciac.llnl.gov in the near future. Use one of the following commands to run FTP with CIAC' Internet address:

ftp CIAC.llnl.gov  
or  
ftp 128.115.19.53

When you are connected to CIAC, if you get the username prompt, type *anonymous*; otherwise, type *user anonymous*.

when you are asked for a password, type your E-mail address (e.g., jones@llnl.gov.)

There is a document explaining the directory of downloadable files stored in the file 0-index.txt in the first level directory. All the computer security-related files and documents are in subdirectories of the directory /pub/ciac.

## CIAC Electronic Bulletin Board and ftp Summary Guide, Continued

To download files, use the GET or MGET command (see below). The file 0-index.txt in each directory lists the other files in that directory and briefly describes their contents. The file news.txt in the /pub/ciac directory contains a list of the new files placed in the archive.

Use the following commands to move around the directory system and download files:

- cd      Change directory, follow with the path to the directory you want to access. Use “.” as the directory name to backup one directory or “/” to backup to the root directory.
- ls      List the contents of a directory.
- binary   Change the mode for downloading files to binary. Execute this command before downloading anything but pure text files, to insure that you get an unmodified file.
- ascii    Change the mode for downloading to ASCII. If you have switched to binary mode, execute this command before downloading pure text files. FTP automatically changes the end of line characters to the ones your machine expects.
- get      Get a file. Follow this command with the name of the file you want to download to your machine.
- mget    Multiple Get. Follow this command with a file name that includes wildcard characters to select and download multiple files. The wildcard character “\*” stands for any number of any characters, and “?” stands for any single character.

### SCANNING DOWNLOADED SOFTWARE

As with any software you obtain, you should exercise caution and scan individual software packages before using the software for the first time. Unless otherwise indicated, all software on FELICIA and CIAC has been scanned for known viruses, but it is advisable to scan all downloaded software using the most recent version of a virus scanning tool. Be sure to scan archived applications after they have been extracted from the .ZIP, .ARC, or SIT archive, as scanning software cannot currently detect a virus within an application until it is in an executable form.

### DOWNLOADING CONSIDERATIONS

If you are downloading to a Macintosh, be sure to use the Text version of the downloading protocol (e.g., Text-XMODEM, Text-YMODEM, etc., for downloads from FELICIA and ASCII mode on CIAC) on your Macintosh when downloading pure text files or unformatted documents. The text version of the downloading protocol corrects for the difference in the end of line characters used on the PC and Macintosh systems (the PC wants a CR-LF at the end of a line while the Macintosh wants a CR only.) When downloading a binary Macintosh file such as a program file or a formatted document, be sure to set the MacBinary form of the protocol (e.g., MacBinary-XMODEM for downloads from FELICIA, and Binary mode on CIAC) on your Macintosh. If you forget to do this, you can still do the conversion later using the Apple File Exchange utility included with the Macintosh system.

## CIAC Electronic Bulletin Board and ftp Summary Guide, Continued

Downloadable PC-DOS/MS-DOS files are either text files (.TXT), zip or arc archives (.ZIP or .ARC) or executables (.COM or .EXE). Text files and executables can be downloaded directly and used. Be sure to use a binary downloading capability (e.g., XMODEM) for the executable files and archives. Files in ZIP archives must be extracted after downloading with PKUNZIP before they can be used. Macintosh files in SIT archives must be extracted with Stuffit before they can be used. Macintosh files in .CPT archives must be extracted with Compactor or Extractor. SEA files are self extracting archives and need no archiving program. Archiving utilities for both PC and Macintosh files are available in their respective file sections.

### USING SHAREWARE

If you are using a shareware package downloaded from FELICIA or any other source, be sure to follow the instructions in the package for compensating the author. The cost is generally minimal (\$10 to \$50), for some very useful applications.

---

# DOCKMASTER Resource Guide

---

This guide was provided by the NCSC.

DOCKMASTER has a multitude of resources concerning computer security available to our users. These resources include papers on viruses and other related issues, Internet resources, technical guidelines (Rainbow Series books and pamphlets), and forum meetings. The following information is available to most users on the DOCKMASTER system. To review the documents listed, the user can change his/her working directory to the indicated directory. The command to do this is "cwd pathname" where the pathname will be given above each list of documents in that directory. The "list" command will display the contents of that directory.

example: cwd >site>net>papers

>site>net>papers

- . Virus frequently asked questions
- . Site security handbook
- . GAO report on the Internet Worm incident
- . Virus101
- . NIST paper on computer viruses and related threats
- . Improving Unix systems security
- . GOSIP draft 2

>site>net>Internet

- . All kinds of information on Internet resources including what it is, its uses, a new user's guide and many more.

>site>net>irg

- . Several directories containing the chapters from the Internet Resources Guide

>site>net>rfcs

- . Many Request for Comments (RFC) documents. These documents cover subjects ranging from protocols for system to system communications; standards for network managers; X.400 and other protocols; addressing schemes; etc. The main library is located at the Network Information Center better known as the NIC. There is an index of all RFCs located at the NIC in this directory.

>site>pubs

- . Orange book in Hypercard version 2.01

## DOCKMASTER Resource Guide, Continued

### >site>pubs>criteria

- . ITSEC (Information Technology Security) paper
- . MSRF (Minimum Security Fundamental Requirements) paper
- . FC-Scope paper - a joint statement by the NIST and NSA on the Federal Criteria.

### >site>pubs>guidelines

- . Trusted Database Interpretation (TDI)
- . Trusted Distribution Guidelines (TD)
- . Audit in Trusted Systems
- . Computer Security Subsystems
- . Computer Viruses
- . Configuration Management
- . Degausser Product List
- . Design Documentation
- . Discretionary Access Control
- . Endorsed Tools List
- . Formal Verification Systems
- . Glossary of COMPUSEC Terms
- . Guideline for Vendors
- . Office Automation Guideline
- . Password Management
- . Product Evaluation Questionnaire
- . Rating Maintenance Plan (RAMP)
- . TCSEC-85 (orange book)
- . TCSEC-83 (orange book)
- . Trusted Facility Management
- . Trusted Network Interpretation (TNI)



## DOCKMASTER Resource Guide, Continued

The following forums are publicly available. To access any of these forums, enter the forum subsystem by typing “forum”. At the forum prompt, type the command “go” followed by either the long forum name or the short forum name. The first entry in the forum usually describes the nature of the forum and what information one may expect to find there. To get more information on how to read the forum entries, refer to the New User’s Guide to Multics sent with your account, send mail to “sysadmin”, or call the DOCKMASTER office. There are several other non-compusec related forum meetings that the DOCKMASTER user may be interested in. To get a list of these meetings, type “list\_meetings” or “lsm” at the forum prompt.

| <u>Long FORUM Name</u>     | <u>Short FORUM Name</u> |
|----------------------------|-------------------------|
| CERT-TOOLS                 | cert-tools              |
| Compusec_Papers_Database   | cp                      |
| Computer_Security_Day      | day                     |
| Conferences                | conf                    |
| Criteria                   | criteria                |
| DDN-News                   | ddn-news                |
| ETHICS-L                   | ethics                  |
| IEEE_Cipher                | cipher                  |
| Legislative_Issues         | li                      |
| NBS_Conference             | nbs                     |
| Nuance_Discussion          | nuance                  |
| RISKS                      | risks                   |
| Security_Discussion        | sd                      |
| Site_Security_Policy       | site-sec                |
| Tech_Guidelines_Info_Forum | tgif                    |
| Training_courses           | tc                      |
| VIRUS-L                    | virus                   |
| WG-Security                | wgs                     |
| announce                   | (no short name)         |
| cert/accreditation         | certify                 |
| epl                        | (no short name)         |
| privacy_enhanced_mail      | pem                     |
| privacy-digest             | pd                      |
| privacy-issues             | privacy                 |

There is a menu driven program on DOCKMASTER that has information from the Products and Services catalog. To access that information just type “openair” and follow the directions on the screen. To create the menu, however, the user must have the PC or workstation terminal emulation software set to one that Multics supports for menu creation. The most popular ones are heath-19, vt100, vt102, and pcxt. A complete list can be viewed by typing “print >doc>iml\_info>video\_supported\_list”. The openair program will ask for this information if it is required to draw the menu.

---

## Mail Example

---

This example begins from the Unix command prompt >. User entries are shown in ***bold italics***. The entries are from two accounts: *richard* and *feingold*, indicated by the square bracketed remarks.

[As richard]

> ***mail feingold***

Subject: ***workshop demonstration***

***Well, do you think this will work? Remember to type control-d at the end. Okay?***

<control-d>

EOT

[As feingold]

> ***mail***

Mail version SMI 4.0 Wed Feb 7 23:10:16 PST 1990 Type ? for help.

"/usr/spool/mail/feingold": 3 messages 2 new 3 unread

U 1 krww@cert.org Mon Nov 16 14:35 936/38857 VIRUS-L Digest V5 #180

>N 2 richard Mon Nov 16 15:11 12/301 Re: test

N 3 richard Mon Nov 16 15:19 14/358 workshop demonstration

& 3

Message 3:

From richard Mon Nov 16 15:19:21 1992

Return-Path: <richard>

Received: by (4.1/SMI-4.1)

id AA00471; Mon, 16 Nov 92 15:19:20 PST

Date: Mon, 16 Nov 92 15:19:20 PST

From: richard (RAF)

Message-Id: <9211162319.AA00471@>

To: feingold

Subject: workshop demonstration

Status: R

Well, do you think this will work? Remember to type control-d at the end. Okay?

& ***r***

To: richard

Subject: Re: workshop demonstration

***Why did you send me this?***

<control-d>

EOT

& ***h***

U 1 krww@cert.org Mon Nov 16 14:35 936/38857 VIRUS-L Digest V5 #180

N 2 richard Mon Nov 16 15:11 12/301 Re: test

> 3 richard Mon Nov 16 15:19 14/358 workshop demonstration

& ***s workshop\_msg***

"workshop\_msg" [New file] 14/368

& ***q***

>

---

## eff Anonymous ftp Example

---

This example begins from the Unix command prompt >. User entries are shown in *bold italics*.

```
> ftp ftp.eff.org
Connected to kragar.eff.org.
220 kragar.eff.org FTP server (Version 6.9 Tue Jul 7 15:53:04 EDT 1992) ready.
Name (ftp.eff.org:feingold): anonymous
331 Guest login ok, send E-mail address as password.
Password: feingold@local.sub.gov
230-If your ftp client chokes on this message, log in with a '-' as the
230-first character of your password to disable it.
230-
230-If you have problems with or questions about this service, send mail to
230-ftphelp@eff.org; we'll try to fix the problem or answer the question.
230-
230-Electronic Frontier Foundation newsletters and other information are in
230-pub/EFF and subdirectories thereof. If you're interested in official
230-EFF positions and philosophies, look here.
230-
230-For general information on the EFF, get pub/EFF/about-eff.
230-
230-Please read the file README
230- it was last modified on Sat May 2 18:10:09 1992 - 193 days ago
230 Guest login ok, access restrictions apply.
ftp> ls
200 PORT command successful.
150 Opening ASCII mode data connection for file list.
etc
pub
bin
users
ls-lR.Z
.notar
README
226 Transfer complete.
47 bytes received in 0.011 seconds (4.3 Kbytes/s)
ftp> get README
200 PORT command successful.
150 Opening ASCII mode data connection for README (279 bytes).
226 Transfer complete.
local: README remote: README
285 bytes received in 0.0027 seconds (1e+02 Kbytes/s)
ftp> cd pub
250 CWD command successful.
ftp> cd CUD
250 CWD command successful.
ftp> ls
200 PORT command successful.
```

## eff Anonymous ftp Example, Continued

150 Opening ASCII mode data connection for file list.

Added

Index

.notar

cdugd

alcor

ane

ati

bootlegger

ccc

chalisti

cdc

cpi

cud

dfp

fbi

inform

law

lod

misc

narc

networks

nfx

nia

nsa

papers

phantasy

phrack

phun

pirate

ppp

schools

synd

tap

upi

wview

aotd

Index.~1~

Added.~1~

Added.~2~

Index.~2~

226 Transfer complete.

280 bytes received in 0.037 seconds (7.4 Kbytes/s)

ftp> **cd bootlegger**

250 CWD command successful.

ftp> **ls**

200 PORT command successful.

150 Opening ASCII mode data connection for file list.

bootlegger-6

bootlegger-7

226 Transfer complete.

28 bytes received in 0.0032 seconds (8.6 Kbytes/s)

## eff Anonymous ftp Example, Continued

```
ftp> get bootlegger-7
200 PORT command successful.
150 Opening ASCII mode data connection for bootlegger-7 (101274 bytes).
226 Transfer complete.
local: bootlegger-7 remote: bootlegger-7
103885 bytes received in 56 seconds (1.8 Kbytes/s)
ftp> quit
221 Goodbye.
```

---

## rn Example

---

This example begins from the Unix command prompt stc06>. User entries are shown in ***bold italics***.

stc06> ***rn***

|  |              |
|--|--------------|
| Unread news in ornl.education.general        | 111 articles |
| Unread news in ornl.mail.decstation-managers | 21 articles  |
| Unread news in ornl.mail.framers             | 141 articles |
| Unread news in ornl.mail.info-afs            | 57 articles  |
| Unread news in ornl.mail.report-card         | 15 articles  |

\*\*\*\*\* 111 unread articles in ornl.education.general--read now? [ynq]***n***

\*\*\*\*\* 15 unread articles in ornl...read now? [ynq] ***g alt.bbs.lists***

\*\*\*\*\* 152 unread articles in alt.bbs.lists--read now? [ynq]***y***

Article 402 (151 more) in alt.bbs.lists:

From: delivery@ixgch.imp.com (Ixgate Delivery)

Newsgroups: ch.general,chcon.general,de.etc.lists,alt.bbs.lists,alt.bbs,comp.bbs  
.misc,xgp.general

Subject: BBS-List of Switzerland (October 1992)

Date: 14 Oct 92 01:06:20 GMT

Followup-To: ch.general

Distribution: world

Lines: 976

\*\*\*\*\*

The BBS-List Service of XGP Switzerland

\*\*\*\*\*

distributing the Swiss BBS-List on the Internet!  
(See end of document for more details on this service.)

### BOT #####

-----  
BYTE RIDER's DREAM BBS LIST OF SWITZERLAND \*\*\*\*\* OCTOBER 1992  
USRobotix oder nix!

Computers by AMIGA, Modems by USRobotics, support by MTV

-----  
--MORE--(2%)***g***

\*\*\*\*\* 2 unread articles in alt.bbs.lists.d--read now? [ynq] ***g comp.risks***

\*\*\*\*\* 8 unread articles in comp.risks--read now? [ynq]***y***

Article 142 (7 more) in comp.risks (moderated):

From: risks@CSL.SRI.COM (RISKS Forum)

Subject: RISKS DIGEST 13.86

Date: 24 Oct 92 20:39:50 GMT

Distribution: world

Organization: The Internet

Lines: 602

RISKS-LIST: RISKS-FORUM Digest Saturday 24 October 1992 Volume 13 : Issue 86

## rn Example, Continued

FORUM ON RISKS TO THE PUBLIC IN COMPUTERS AND RELATED SYSTEMS  
ACM Committee on Computers and Public Policy, Peter G. Neumann, moderator

### Contents:

Software Bombs Out -- Ark Royal revisited (Simon Marshall)  
Erased Disk used against Brazilian President (Geraldo Xexeo)  
The NSF Net cable-cut story (Steve Martin via Alan Wexelblat)  
Risks in Banking, Translation, etc. (Paul M. Wexelblat)  
Re: 15th National Computer Security Conference (Dorothy Denning)  
Re: Vote Early, Vote Often (Louis B. Moore)  
T\*p S\*cr\*t (Berry Kercheval)  
Book Review: The Hacker Crackdown (David Barker-Plummer)  
Filling station POS terminals: credit card users beware! (Steve Summit)  
Int Workshop on Fault and Error Models of Failures in Comp Sys (Ram Chillarege)  
--MORE--(4%)  
End of article 142 (of 149)--what next? [npq] s

File /usr/u1/fgq/News/Comp.risks doesn't exist--  
use mailbox format? [ynq]y  
Saved to mailbox /usr/u1/fgq/News/Comp.risks  
End of article 142 (of 149)--what next? [npq]q

\*\*\*\*\* 194 unread articles in comp.robotics--read now? [ynq]q  
stc06>

---

# NIST Dial Up Electronic Bulletin Board System Example

---

In this example, access is via a Hayes compatible modem. User entries are shown in *bold italics*. Note that the NIST electronic bulletin board system can also be accessed via ftp.

***atdt 3019485717***

RRING

CONNECT 2400

Welcome to NIST CSRC BBS - Node 2 (Reliable)

For faster login, enter FIRSTNAME LASTNAME PASSWORD

What is your FIRST name?

What is your LAST name? ***Richard Feingold***

Checking Users...

User not found

Are you 'RICHARD FEINGOLD' ([Y],N)? ***y***

What is your CITY and STATE? ***Livermore, CA***

Welcome to the National Institute of Standards and Technology -

[...disclaimer/responsibility information deleted...]

by the National Institute of Standards and Technology.

\* \* \* \* \*

RICHARD FEINGOLD from LIVERMORE, CA

C)hange FIRST name/LAST name/CITY and STATE, D)isconnect, [R]egister? ***r***

Enter PASSWORD you'll use to logon again (dots echo)? ***mypassword***

Re-Enter password for Verification (dots echo)? ***mypassword***

Please REMEMBER your password

Welcome to RBBS-PC, Richard. Your security level 5 indicates that you have sufficient security to access this BBS. You have 60 (mins:secs) for this session.

Logging RICHARD FEINGOLD

RBBS-PC 17.3C Node 2, operating at 2400 BAUD-R,N,8,1

Telling sysop you're on...

Welcome to the NIST Computer Security Bulletin Board

This Bulletin Board is maintained by the Computer Systems Laboratory and is intended to encourage the sharing of information that will help users and managers better protect their data and systems. The mention of vendors or product names does not imply criticism or endorsement by the National Institute of Standards and Technology or by the SYSOP.

Sysop: Marianne Swanson

Technical Questions: John Wack

Voice: (301) 975-3359



# NIST Dial Up Electronic Bulletin Board System Example,

Continued

```
301-948-5717 -->      300/1200/2400      Node 1
                -->      300/1200/2400      Node 2
301-948-5140 -->      1200/2400/9600      Node 3
                -->      1200/2400/9600      Node 4
```

```
Internet:  telnet to cs-bbs.ncsl.nist.gov (129.6.54.30)
            download files available via anonymous ftp
            from csrc.ncsl.nist.gov (129.6.54.11)
```

```
*****
* Note: by continuing, you explicitly acknowledge that all messages,*
* private and public, may be read by others, including the sysop(s).*
*****
```

```
* Ctrl-K(^K) / ^X aborts. ^S suspends ^Q resumes *
```

```
*****      NEWS      *****
February 18, 1993
```

The draft Federal Criteria is now available in ascii. Bulletin 39 describes the document and lists all of the available formats for More [Y]es,N)o,C)ont,A)bort,J)ump? **Y**

dowloading.

NIST Special Publication 800-5 and 800-6 are also now available in ascii. Several new alerts have been posted as well as a proposed guideline on sentencing criminals.

We have been having periodic problems with our Internet connection. Efforts are being made to correct the situation.

```
*****
At least 0 NEW file(s) since last on
```

```
* Ctrl-K(^K) / ^X aborts. ^S suspends ^Q resumes *
```

## BULLETIN TOPICS MENU

- |   |                                 |  |
|---|---------------------------------|--|
| 1 | Using the BBS - READ THIS!      | NOTE: Viewing Bulletins is NOT straightforward! The BBS makes you view all bulletins from this menu only. For example, after displaying sub-menu 1 you want to view Bulletin 16, return to this menu and then enter '16' at the prompt at the bottom of this menu. |
| 2 | Computer Security Alerts        |  |
| 3 | NIST Publications               |  |
| 4 | Upcoming Events & Activities    |  |
| 5 | Of General Interest             |  |
| 6 | Resources                       | TO DOWNLOAD BULLETINS, first note the bulletin numbers. Quit this menu, go to the Main Menu & type 'F' to go to the File Menu. Then type 'D' to download. To download Bulletin 24, ex., use filename 'BULLET24'  |
| 7 | Computer Security Organizations |  |
| 8 | Virus-L and Risks Forum         |  |

Read what bulletin(s), L)ist, S)ince, N)ews ([ENTER] = none)? **2**

# NIST Dial Up Electronic Bulletin Board System Example,

Continued

\* Ctrl-K(^K) / ^X aborts. ^S suspends ^Q resumes \*

## Computer Security Alerts (2)

The Alerts are placed in chronological order according to the date -- most recent at the top of the list. There are nine bulletins listed at any given time. The old bulletins are located in the file section under the "Alerts" Directory. The old bulletins can only be viewed by downloading them.

| Date     | Topic  | Bulletin # |
|----------|--|------------|
| -----    | -----  | -----      |
| 02-18-93 | Revised Commodore Amiga UNIX finger Vulnerability<br>CERT Advisory                 | 29         |
| 02-17-93 | Failure to disable user accounts for VMS 5.3 to 5.5-2<br>CIAC Information Bulletin | 21         |

More [Y]es,N)o,C)ont,A)bort,J)ump? **n**

[...Menu repaint omitted...]

Read what bulletin(s), L)ist, S)ince, N)ews ([ENTER] = none)? **1**

\* Ctrl-K(^K) / ^X aborts. ^S suspends ^Q resumes \*  
Using the BBS (1)

The following bulletins contain information on how to use this bbs. It is advisable to read these bulletins first before attempting to use the board. The instructions for downloading bulletins and files offers a step by step approach that should prove very useful.

| Bullet # | Last Updated | Topic                                |
|----------|--------------|--------------------------------------|
| -----    | -----        | -----                                |
| 11       | 09-28-89     | General Information                  |
| 12       | 03-25-92     | Accessing the BBS                    |
| 13       | 11-21-91     | About Bulletins                      |
| 14       | 11-21-91     | About Files                          |
| 15       | 09-28-89     | Messages to the "Sysop"              |
| 16       | 03-25-92     | Download and FTP Bulletins and Files |
| 17       | 03-27-90     | Upload Policy                        |
| 18       | 02-06-92     | Obtaining this BBS software          |

**\*\*NOTE:** An extensive User's Guide is available by either contacting Clare Lucey at 301-975-3359 or by downloading the file "BBSGUIDE.TXT" from this BBS.

\* Ctrl-K(^K) / ^X aborts. ^S suspends ^Q resumes \*

# NIST Dial Up Electronic Bulletin Board System Example,

Continued

[...Menu repaint omitted...]

Read what bulletin(s), L)ist, S)ince, N)ews ([ENTER] = none)?<cr>

Checking messages in MAIN... ..

Sorry, RICHARD, No mail for you

RBBS-PC 17.3C Node 2

Caller # 63477 # active msgs: 719 Next msg # 2899

```

-----*>>> RBBS-PC MAIN MENU <<<*-----
----- MAIL ----- SYSTEM ----- UTILITIES ----- ELSEWHERE ---
[E]nter Messages [A]nswer Questions [H]elp (or ?)
[K]ill Messages [B]ulletins [F]iles
[P]ersonal Mail [C]omment to Sysop [G]oodbye
[R]ead Messages [I]nitial Welcome [X]pert on/off [Q]uit
[S]can Messages [U]tilities
[T]opic of Msgs [W]ho's on * = unavailable
-----
```

```

Current time: 11:19 AM Minutes remaining: 55 Security: 5
-----
```

MAIN: 55 min left

MAIN command <?,A,B,C,E,F,G,H,I,K,P,Q,R,S,T,U,V,W,X>? **g**

Log off (Y,[N])? **y**

Now: 03-02-1993 at 11:20:54

On for 5 mins, 54 secs

60 min left for next call today

RICHARD, Thanks and please call again!

---

## CIAC Anonymous ftp Example

---

This example begins from the Unix command prompt >. User entries are shown in ***bold italics***. Note that the name *CIAC* will be changing to *ciac*.

> ***ftp CIAC***

Connected to CIAC.llnl.gov.

220 CIAC.llnl.gov FTP server (Version 6.22 Wed Jan 27 09:36:28 PST 1993) ready.

Name (CIAC:feingold): anonymous

331 Send e-mail address, name, organization, and phone number as password.

Password: ***feingold@sub.domain.gov, Richard Feingold, CIAC, 510.555.1212***

230- This is the CIAC archive, provided and maintained by

230- the Computer Security Group, Lawrence Livermore National

230- Laboratory.

230-

230- All activity is logged with your host name and e-mail address.

230-

230- If your FTP client crashes or hangs shortly after login, try

230- using a dash (-) as the first character of your password.

230-

230- Send comments/questions/problems to: ciac@llnl.gov

230-

230-

230 Guest login ok, access restrictions apply.

ftp> ***ls***

200 PORT command successful.

150 Opening ASCII mode data connection for file list.

lost+found

etc

bin

pub

usr

dev

.login\_message

0-index.txt

incoming

226 Transfer complete.

76 bytes received in 0.016 seconds (4.8 Kbytes/s)

ftp> ***cd pub***

250 CWD command successful.

ftp> ***ls***

200 PORT command successful.

150 Opening ASCII mode data connection for file list.

spi

ciac

felix

tmp

util

sun

patches

## CIAC Anonymous ftp Example, Continued

```
226 Transfer complete.
43 bytes received in 0.011 seconds (3.9 Kbytes/s)
ftp> cd ciac
250 CWD command successful.
ftp> ls
200 PORT command successful.
150 Opening ASCII mode data connection for file list.
virus-l
news.txt
docs
.private
pcvirus
pcutils
macvirus
macutils
atarivir
reviews
books
ciacdoc
certdoc
ddndoc
nasaspan
nistdoc
ihg
226 Transfer complete.
149 bytes received in 0.023 seconds (6.2 Kbytes/s)
ftp> pwd
257 "/pub/ciac" is current directory.
ftp> cd ciacdoc
250 CWD command successful.
ftp> ls
200 PORT command successful.
150 Opening ASCII mode data connection for file list.
fy89
a-fy90
b-fy91
c-fy92
d-fy93
xref.txt
226 Transfer complete.
48 bytes received in 0.0097 seconds (4.8 Kbytes/s)
ftp> cd d-fy93
250 CWD command successful.
ftp> ls
200 PORT command successful.
150 Opening ASCII mode data connection for file list.
d-01.ciac-novel-access-rights
d-02.ciac-(*limited-distribution*)
d-03.ciac-vms-MONITOR-patch
d-04.ciac-sunos-18-patches
0-index.txt
```

## CIAC Anonymous ftp Example, Continued

```
intro.txt-introduction-to-CIAC
ciacreqs.txt-ciace_doe_requirements
d-05.ciac-hp-NIS-ypbind
226 Transfer complete.
230 bytes received in 0.016 seconds (14 Kbytes/s)
ftp> get d-03.ciac-vms-MONITOR-patch
200 PORT command successful.
150 Opening ASCII mode data connection for d-03.ciac-vms-MONITOR-patch (7249 bytes).
226 Transfer complete.
local: d-03.ciac-vms-MONITOR-patch remote: d-03.ciac-vms-MONITOR-patch
7382 bytes received in 0.12 seconds (61 Kbytes/s)
ftp> bye
221 Goodbye.
>
```

---

# CIAC Electronic Bulletin Board System Example

---

In this example, access is via a Hayes compatible modem. User entries are shown in *bold italics*. Note that the electronic bulletin board system can also be accessed via ftp.

**atdt 5104234753**

RRING

CONNECT 2400

WARNING: Unauthorized access to this  
computer system is prohibited. Violators  
are subject to criminal and civil penalties.

WELCOME TO FELICIA

This BBS is run by the Computer Incident Advisory Capability (CIAC).  
All users must register and truthfully answer the newuser questionnaire.

First Name? **Richard**  
Last Name? **Feingold**  
Searching User File ...  
Calling from (City,State)? **Livermore, CA**

TBBS Welcomes RICH FEINGOLD  
Calling From LIVERMORE, CA  
Is this correct? **y**  
# Chars per line on screen(10-132)? **80**

|           |                |           |                 |                |
|-----------|----------------|-----------|-----------------|----------------|
| <A>VIDTEX | <B>TRS-80 1/3  | <C>VT-52  | <D>ATARI        | <E>H19/H89/Z19 |
| <F>IBM PC | <G>Televid 925 | <H>VT-100 | <I>Mac Versater | <J>Dum TTY     |

Enter letter of your terminal, <CR> if not listed: **h**

Terminal Profile Set to:  
No ANSI codes Allowed  
No IBM Graphics Allowed

Upper/Lower Case  
Line Feeds Needed  
0 Nulls after each <CR>  
Do you wish to modify this? **N**  
Do you wish to have a pause after each display page (Y/N)? **N**

Please Enter a 1-8 character Password to be used for future logons. This password may have any printable characters you wish. Lower case is considered different from upper case and imbedded blanks are legal. REMEMBER THIS PASSWORD. You will need it to log on again.

Your password? **mypswd**  
You have read through message 0  
Current last message is 191  
You are caller number 1726  
You are authorized 60 mins this call

## CIAC Electronic Bulletin Board System Example, Continued

## Policies of Felix

[...Policy and disclaimer omitted...]

```

The Computer Incident Advisory Capability Bulletin Board
Voice:Com/FTS (510)422-8193
Data:Com/FTS (510)423-4753 2400 baud
Com/FTS (510)423-3331 9600 baud
Your friendly Sysops are Bill and Karyn

```

This board is run by CIAC for the Department of Energy.

```
[...Informational messages omitted...]
```

## New User Registration Section

Do you work for a DOE site?

<Y>es

<N>O

<S>kip registration.

Command: **y**

Registration for DOE sites.

Enter your full name: **Richard Feingold**

Organization: **LLNL**

Address Line 1: ***L-303***

Address line 2: **P.O. Box 808**

City, State, ZIP: **Livermore, CA 94551**

Commercial Telephone Number: 510.422.1783

FTS Telephone Number: **510.422.1783**

Responsible DOE field office (SAN, ID, etc.):**SAN**

Richard Feingold

LLNL

L-303

P.O. Box 808

Livermore, CA 94551

510.422.1783

510.422.1783

SAN

Is this correct (Y/N)?**y**

FELICIA BBS - Main Menu

Computer Incident Advisory Capability

=====

&lt;\*&gt; Information on TBBS

<N>ew Files On Felicia

## Bulletins and System Notices

<F>ile Transfer Section

<M>ail and dialog with Felix users

<V>irus Database

<R>ecent callers

<T>ime on the system

## <U>ilities Section

<G>oodbye



## CIAC Electronic Bulletin Board System Example, Continued

Command: **f**

FELICIA BBS - File Transfer Section  
Computer Incident Advisory Capability  
=====

<D>ownload Area  
<U>pload Area  
<->Previous Menu  
<T>ime on the system  
<G>oodbye

Command: **d**

FELICIA BBS - File Download Section  
Computer Incident Advisory Capability  
=====

Select A Download Area From The Following List

<M>acintosh Files  
Macintos<h> Utility Programs  
<P>C Files  
PC <U>tility Programs  
<A>tari files  
<L> Incident Handling Guidelines  
<C>IAC Documents  
C<E>RT Documents  
<N>IST Documents  
<D>DN Documents  
NA<S>A-SPAN documents  
<V>irus-L Moderated News  
<R>eviews of anti-virus software  
<O>ther useful stuff.  
<->Previous menu  
<T>ime on the system  
<G>oodbye

Command: **o**

Type P to Pause, S to Stop listing

### ETC DIRECTORY

This directory contains useful things that don't fit into our other categories.

#### ----- Notices and Guides -----

|              |        |          |  |
|--------------|--------|----------|--|
| BIBLIO.TXT   | 3463   | 2-05-92  | Bibliography of virus books.           |
| GRADSCH.TXT  | 3537   | 12-09-91 | Grad schools with Comp Security Progs. |
| CIACDB.ZIP   | 110025 | 3-25-91  | CIAC virus database (big)              |
| DES.TXT      | 22455  | 1-30-90  | General information on DES encryption  |
| FATHER_X.TXT | 41966  | 1-11-90  | A full report on the Father Xmas worm  |
| GUIDANCE.TXT | 13568  | 12-17-84 | General guidance on computer security  |
| FTPSITES.TXT | 35737  | 1-11-90  | Common FTP sites on the Internet       |

<D>ownload, <P>rotocol, <E>xamine, <N>ew, <H>elp, or <L>ist  
Selection or <CR> to exit:<cr>

## CIAC Electronic Bulletin Board System Example, Continued

FELICIA BBS - File Download Section  
Computer Incident Advisory Capability  
=====

Select A Download Area From The Following List

<M>acintosh Files  
Macintos<h> Utility Programs  
<P>C Files  
PC <U>tility Programs  
<A>tari files  
<L> Incident Handling Guidelines  
<C>IAC Documents  
C<E>RT Documents  
<N>IST Documents  
<D>DN Documents  
NA<S>A-SPAN documents  
<V>irus-L Moderated News  
<R>evIEWS of anti-virus software  
<O>ther useful stuff.  
<->Previous menu  
<T>ime on the system  
<G>oodbye

Command: **g**

FELICIA BBS - Termination Section  
Computer Incident Advisory Capability  
=====

Do you want to leave a message for the  
SYSOP?

<Y>es  
<N>o

<->Return to previous menu

Command: **n**

Logged on at 13:17:45  
Logged off at 13:20:38

Thanks for calling FELICIA  
Please Hang Up Now

---

## References

---

Cronin, Mary J., *Doing Business on the Internet*, Van Nostrand Reinhold, 1994.

Fraase, Michael, *The MAC Internet Tour Guide*, Ventana Press, 1993.

Frey, Donnalyn & Adams, Rick, *!%@:: A Directory of Electronic Mail Addressing and Networks*, O'Reilly & Associates, Inc., 1990.

Krol, Ed, *The Whole Internet User's Guide and Catalog*, O'Reilly & Associates, Inc., 1992.

LaQuey, Tracy, with Ryer, Jeanne C., *The Internet Companion—A Beginner's Guide to Global Networking*, Addison Wesley, 1993

Marine, April, editor, *Internet: Getting Started*, SRI International, 1992.

Network Information Center, *DDN NEW USER GUIDE*, anonymous FTP from nic.ddn.mil:netinfo/nug.doc.

Quarterman, John S., *The Matrix: Computer Networks and Conferencing Systems Worldwide*, Digital Press, 1990.

---

# Appendix B: Contacting CIAC

## Contacting CIAC

---

|                             |  |
|-----------------------------|--|
| <b>Phone</b>                | (510) 422-8193   |
| <b>Fax</b>                  | (510) 423-8002   |
| <b>STU-III</b>              | (510) 423-2604   |
| <b>Electronic mail</b>      | ciac@llnl.gov  |
| <b>Emergency SKYPAGE</b>    | 800-SKYPAGE pin# 855-0070                                |
| <b>Anonymous FTP server</b> | ciac.llnl.gov (IP 128.115.19.53)                         |
| <b>BBS</b>                  | (510) 423-3331 (9600 Baud)<br>(510) 423-4753 (2400 Baud) |

---



# Reader Comments

---

CIAC updates and enhances the documentation it produces. If you find errors in or have suggestions to improve this document, please fill out this form. Mail it to CIAC, Lawrence Livermore National Laboratory, P.O. Box 808, Mail Stop L-303, Livermore, CA, 94551-9900. Thank you.

List errors you find here. Please include page numbers.

---

---

---

---

---

---

---

---

List suggestions for improvement here.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Optional:

Name \_\_\_\_\_ Phone \_\_\_\_\_